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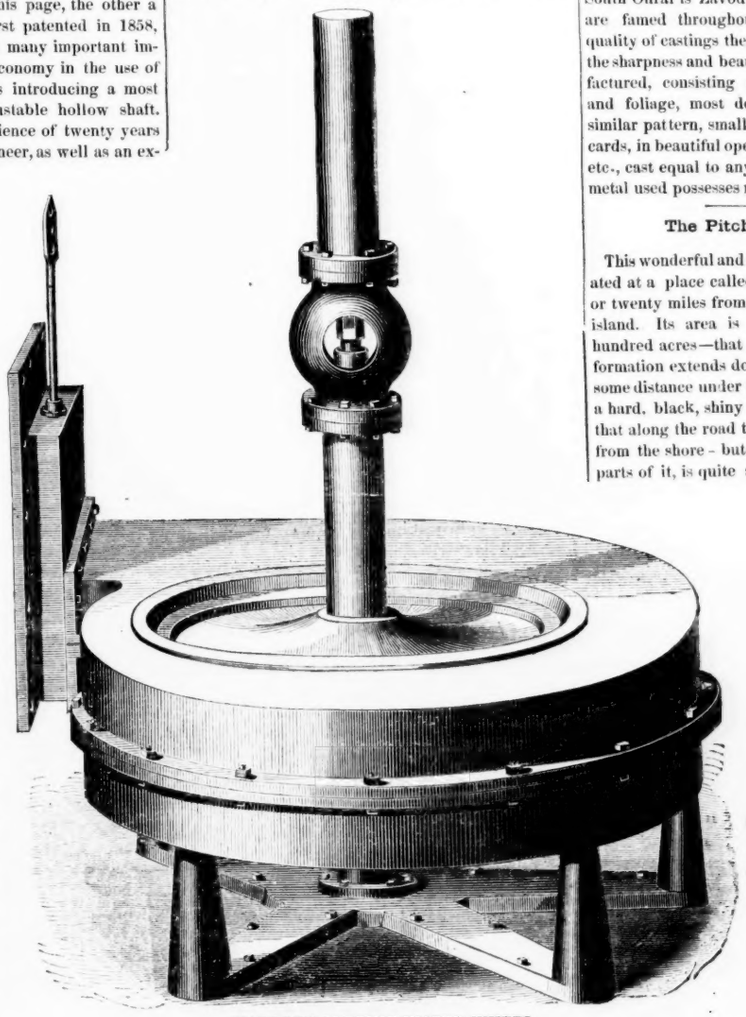
IMPROVED TURBINE WATER WHEEL.

We herewith present to our readers two illustrations of Warren's American Turbine Wheel, manufactured by the American Water Wheel Company, of Boston, Mass.—one in perspective, on this page, the other a section, on page 311. It was first patented in 1858, since which time it has received many important improvements with reference to economy in the use of water and otherwise, as well as introducing a most valuable invention for an adjustable hollow shaft. The inventor, who has an experience of twenty years as a scientific and practical engineer, as well as an extensive manufacturer of Turbines, assures us that this wheel, with its late improvements, combines all the requisite advantages demanded by the public. Our illustrations clearly represent the principles of its construction. The sectional view represents the No. 1 Turbine, showing the wheel, hollow shaft, Globe coupling, "Improved Disk Stopwater," auxiliary buckets, etc., with section of curb. *a*, is the flange of globe, coupling and top shaft, secured with bolts; *b*, the shell or globe part; *c*, a set screw which operates against a small brass bearing, *e*, which (bearing) is properly fitted to the screw, *j*, for the purpose of holding the screw or step without injury to the thread. It may be turned by applying a wrench to the six-square part of the step, *h*, which is made of steel: *i*, is the step box, in which is placed three convex steel washers, made as hard as possible. The step rests on these in the oil cup, on the end of the inside shaft, as shown. *d*, is a flange connecting with hollow shaft. This hollow shaft is bored to fit the inside shaft, having a long bearing at each end. The disk stopwater, *f*, *f*, is an improvement that effectually prevents the leakage of water on the top of wheel. *n*, *n*, represents the "auxiliary attachment," which is a series of buckets arranged obliquely under the periphery of the wheel. It is impossible to prevent the gritty substance from cutting away the stopwaters at this point of the wheel, thereby creating a leakage and loss of power, which is utilized and effectually restored by this improvement. Many of these wheels are in operation in the largest cotton and woollen factories in the country, where, from the numberless testimonials we have seen, they appear to have given every satisfaction. They are made from one to nine feet in diameter, and adapted to all heads and every kind of machinery. Further particulars can be obtained by application to A. Warren, Agent, American Water Wheel Co., No. 31 Exchange st., Boston, Mass.



WARREN'S TURBINE WATER WHEEL.

Russian Iron.

The superiority of Russian sheet iron lies not so much, perhaps, in any peculiarity in the process of its manufacture, as in the quality of the ore from which it is made. Of the several descriptions that I have read of travellers visiting the iron works of Russia, I have seen no intimation that they were restricted in their examination, or that any secresy existed in the process of manufacture. Wm. Atkinson, in his "Oriental and Western Liberia," says "Verne Issetzkor Zavod, about three versts from Ekaterinburg, belongs to the Yakovliff family. These iron works have long been celebrated for the quality of sheet iron, which stands unrivalled. The sheet iron made in this Zavod, and at some other works belonging to it, surpasses all other productions of the kind, either in the Oural or elsewhere. It is rolled for various purposes—for covering the roofs of houses, for sheet-iron stoves, and for a great variety of utensils. The metal is of so excellent a quality that I have seen it rolled as thin as post paper, without a crack or blemish, and with a jet black polish. An enormous quantity of the various sorts of this manufacture is sent to America. In the South Oural is Zavod of Kaslinskon; these iron works are famed throughout the Oural for the superior quality of castings they produce. I was astonished by the sharpness and beauty of the different articles manufactured, consisting of tables perforated by tracery and foliage, most delicately executed; chairs of a similar pattern, small boxes, baskets, and dishes for cards, in beautiful open work; animals, paper weights, etc., cast equal to anything produced in Berlin. The metal used possesses much fluidity."

The Pitch Lake of Trinidad.

This wonderful and singular natural formation is situated at a place called La Brea, and is about sixteen or twenty miles from Port au Spain, the capital of the island. Its area is between one hundred and two hundred acres—that is, the lake itself—but the same formation extends down to the sea shore, and even for some distance under the sea. The substance itself is a hard, black, shiny pitch; this is the appearance of that along the road to the lake—which is about a mile from the shore - but that found in the lake, in some parts of it, is quite soft and almost liquid. But the most singular thing about this lake is, that all attempts hitherto made to find out the depth of this formation have proved futile, and that, too, from natural causes. The men engaged in mining the pitch work on the surface of the lake, which is comparatively hard, except in some places, with pickaxes and spades, chopping out the pitch in good sized pieces; but the elasticity and expansibility of this substance is so great, that even when they have dug a pit, say to the depth of four or five feet, and perhaps six feet long by five feet wide, in the course of a day, they will find, on returning to their work in the morning, the walls of this hole approximating so closely as to be almost touching each other, and if left for four or five hours longer there is not to be seen the slightest trace of where the night before was a yawning pit in the surface, and thus no sensible diminution is visible in the quantity existing in the lake, even with the large amount annually removed for shipment to foreign ports. Very considerable quantities of this pitch are annually exported to England, in vessels chartered for that purpose, from which oil is refined. It is also used for the ordinary purposes of gravel roofing.

Amalgamation of Silver Ore.

In reply to a correspondent, we will give a condensed statement from a standard authority of the first treatment of silver and gold ores by the process

of amalgamation. The ancient Romans used quicksilver to amalgamate and collect the gold that remained in old lace and similar ornaments, but we have no account of its being employed on a large scale for working ores. An Arabian manuscript speaks of the employment of quicksilver in amalgamating gold sands by the negroes of Nubia, in the twelfth century, as though it were a fact well known. But little or no use, however, appears to have been made of mercury for extracting silver from its ores before the middle of the sixteenth century, when a process was discovered in Mexico by Bartolme de Medina, and shortly afterwards transported to Peru by Valasco. The introduction of the system into Europe was proposed in 1588, but the subject was soon dropped, and a period of two hundred years passed without its being again broached. Quicksilver resembles lead in possessing a greater attraction for silver than for most other elements. If the two metals are brought together, even at common temperatures—the quicksilver being in a liquid condition—a rich quicksilver, or an amalgam, will be formed, in which both metals will retain a reguline condition—that is, a pure metallic state, free from extraneous matter. This important compound of mercury and silver may have the latter metal in various proportions; but when it reaches thirty-five per cent. the mercury will be saturated. Fortunately circumstances favored the experiment in South America, and a priest named Barba, a native of Andalusia, modified the early plan of amalgamating in heaps, and introduced the amalgamation in copper kettles. In the year 1784, Born, an Austrian mining officer, introduced into Europe the improved process of Barba. The establishment of amalgamating works in Hungary created a remarkable sensation in the metallurgic world, and in 1796 engineers and mining officers from Cornwall, Norway, Prussia, Hanover, and Saxony, met in the remote town of Chemnitz, attracted by the fame of the novel process. From Hungary the system was carried to Freiberg, and, after being essentially modified, was put largely in practice. Thus it will be observed, the Saxon or Freiberg, method of amalgation grew from the primative plan of Medina, and only after two and a half centuries arrived at the state of perfection in which it was introduced into the furnace on the Mulda. The system continued in use at this spot until a few years ago, when the prosess was relinquished because of the large sum that was required for wages, the incompleteness with which some of the ores could be worked, and because the experience of more than half a century had so improved the plan of reduction by fire that it could be employed more economically than when the new process was introduced in 1790. The system of amalgamation is especially suitable for localities where fuel is very scarce and dear, and where it is found desirable to extract the silver from its ores with the aid of little or no artificial heat. Those ores that are eminently adapted to this treatment are such as contain but a slight proportion of silver, and are of a very refractory nature. —*Reveille.*

Mineral Products of Spain.

The following are the totals of minerals and metals extracted in Spain during 1860 and 1863, exclusive of those belonging to the Government:

MATERIAL.	1863		1863	
	Minerals extracted.	Metal extracted in native wks	Minerals extracted.	Minerals extracted in native wks
	Tons.	Tons.	Tons.	Tons.
Iron	175,502	41,137	222,676	98,546
Lead	316,818	82,498	396,025	69,918
Silver	4,230	14¼	3,061	9
Copper	146,003	2,704	148,144	1,921
Tin	7	40½	61	14¼
Zinc	108,802	1,853	48,124	1,381
Quicksilver	8,041	40½	7,421	19
Antimony	60	34½	85	....
Manganese	288,628	....	14,860	....
Sulphur	23,045	3,210	11,981	2,346
Coal	521,773	....	401,390	....

Noxious Vapors from Metal Works.

The committee appointed in England, to report on the injury produced by noxious vapors have just issued a blue book on the subject. Among the other sources of injurious vapors, they enumerate "the melting of copper and lead, processes which evolve sulphurous acid," which, when existing in a gaseous form in the atmosphere, is undoubtedly injurious both to animal and vegetable life. All persons who have been in the neighborhood of large copper works know quite well the injury inflicted on the vegetation for a long distance from the works. The committee recommend, that "qualified inspectors be appointed, who would at all times, even without notice, have free access to the works as far as may be necessary, to ascertain that the nuisance is effectually prevented, and who shall be charged with enforcing the law; and without desiring to imply any suspicion of the local authorities, they concur in the opinion expressed by more than one witness, that such inspectors, by whomsoever appointed and paid, should be wholly independent of all local control and removed as far as possible from all local influence."—*Ironmonger.*

Mining Summary.

GOLD AND SILVER.

Nevada.

Review of the Comstock.—An authentic history of the thirty-five different claims located on the great Comstock veins, says the San Francisco *Guzette*, would disclose information of great interest to the public, but accurate details respecting them are not at our disposal, and probably never can be obtained. The total yield of the Comstock lode during the last five years has amounted in round numbers to about $60,000,000. It would also be of interest to know what amount has been expended in the development of these claims and what proportion of their gross product has been disbursed to stockholders in the shape of net earning and dividends. Many of them, however, seem to have kept no accurate record of their earlier operations, while others appear not to appreciate the importance of giving any details whatever. It is a well known fact that within the past year or two nearly all of these mines were worked with very little economy or judgment, and that millions of dollars were squandered in bad management, through the incapacity and cupidity of superintendents and other officials. For some time there has been a change in this respect, a better system now prevails, and the affairs of different companies are directed with intelligence and honesty. The waste and extravagance of an earlier period have given place to wise and judicious economy in every department, and during the past year, without any material increase in the gross yield of bullion, more money was actually earned than in any former like period. In 1865 the entire yield of all the Comstock claims approximated $14,000,000; the assessments levied during that period were $1,950,000, and the dividends declared did not exceed $1,900,000. During the year 1866 the gross product of these claims has been about $14,500,000, and $14,854,000 have been distributed in dividends to shareholders, while the aggregate assessments levied amounted to $1,242,980..... The gross yield of the Gould & Curry mine since it was first opened has been about $13,669,150, and the total dividends declared by the company amounted to $3,736,800. During the past year 58,162 tons of ore have produced nearly $1,660,000 in bullion, and out of this sum $252,000 have been divided among the stockholders, equal to $210 per foot..... The Savage mine has given evidence of decided value of late, and is now one of the most promising claims upon the Comstock. The total production of ore from April, 1863, to July, 1866, exceeded 110,000 tons, from which about $4,250,000 were realized in bullion, and $880,000 were disbursed to stockholders. Since July last the bullion receipts of the company have amounted to about $1,110,000, being the product of some 24,000 tons of ore. Regular dividends have been declared for the past six months, amounting in all to $360,000, an average of $60 per foot per month..... From the time operations were first begun upon the Hale & Norcross claim down to April last, little or nothing was realized to warrant the unremitting energy and large outlay of capital expended by shareholders upon its development. The first assessment was levied in July, 1861, and from that date to December, 1865, the aggregate assessments amounted to $350,000, or $75 per foot. It is rather a singular coincidence that since March last the earnings of this company divided among stockholders gave an aggregate of just $875 per foot. During the eleven months ending with December last this mine yielded more than $1,200,000 from some 25,000 tons of ore..... The office of the Yellow Jacket company is located at Virginia City, to the detriment and inconvenience of stockholders and others in this city, and mainly for this reason and the peculiar reticence of certain officials, we have found it difficult to obtain any accurate data pertaining to the operations of the mine prior to 1865. In that year $420,000 were required from stockholders in the form of assessments, and $330,000 were paid to them in dividends. For the year just closed a more favorable record is presented, monthly dividends having been declared since July last, amounting in all to $390,009, and but one assessment of $150 per foot was levied in February last. The entire yield of this claim during the year has exceeded $2,300,000 from some 80,000 tons of ore..... The Crown Point claim was first opened in 1861, and did not prove very remunerative property to stockholders until the beginning of 1866, and prior to this latter date assessments amounting in all to $200 per foot, were rendered necessary for certain improvements and its thorough development. Some 35,000 tons of ore have been extracted from this mine during the past twelve months, giving a bullion result of $1,273,000, or an average of more than $38 per ton. In March, April, May, June, November and December last, dividends were declared to the amount of $234,000, or $292 50 per foot..... The Ophir mine, once regarded as one of the leading claims of Washoe, has, during the past two years, so diminished in productive value as to become almost a burden to shareholders. From May, 1860, to the close of 1866, $7,500,000 were taken from this claim, and up to 1864, $1,004 per foot, or $1,405,000 were paid in dividends out of the net earnings. One assessment of $100 per foot was levied in August, 1865, and in 1866 two, of $72 and $60 per foot, respectively. This company has reduced, during the past year, 11,163 tons of ore, yielding, in the aggregate, $450,000..... The Empire mine has obtained much prominence lately, and is now, perhaps, in a more productive condition than at any former period of its history. From the organization of the company in March, 1863, to November 30, 1864, 25,600 tons of ore were crushed, yielding $1,043,720, and the dividends paid during that period amounted to $288,000, exclusive of some $200,000 expended upon mills and other improvements. During the years of 1865 and 1866, nearly $1,000,000 in bullion was derived from 42,250 tons of ore, and $152,400 were disbursed in dividends to stockholders .... The Imperial mine, from the date of its earliest operations, March, 1863, to May 31, 1865, yielded an aggregate of $1,500,000, and earned in dividends to stockholders $287,000. From June 1, 1865, to the close of December last, the gross yield of bullion exceeded $1,525,000, and some 55,000 tons of ore were crushed. During that period, the dividends declared have amounted to $376,000.....A consolidation of the Chollar and Potosi companies was made in April, 1865, and in December of that year an assessment of $280,000 was required of the new organization to liquidate the old indebtedness, and for other purposes. During the past year the bullion receipts of the company amounted to $50,000, being the product of 47,800 tons of ore. A very large amount of this ore was sold in the mine, at prices varying from one to eight dollars per ton. No assessments have been levied during the past year . . The Confidence, from the date of its organization in 1863 to the present time, has produced in bullion about $650,000, and some dividends, we believe, were declared prior to 1865. During the past year, the assessments levied reached an aggregate of $78 000 .....Alpha lost its former prestige during the past year, and has, for some time past, been a drain upon the pockets of stockholders. In 1865 assessments amounting to $660 per foot were levied, and during the past year $520 per foot was assessed .....Overman has also proved very unremunerative to its owners. In the year 1865 two assessments, amounting to $75 per share, were levied, and out of the $209,000 required of stockholders in 1866, $152,000 were paid into the treasury of the company. The bullion receipts for the past year were insignificant, and did not exceed $28,000..... The Bullion company has likewise taxed their shareholders heavily for two years past; six assessments, in all $126 per share, were levied in 1865, and since then further requisitions were made to the extent of $175,000 . . The Belcher mine, in the year 1865, sold as high as $1,800 per foot, and declared a number of dividends—in all $536 per foot—that year. Since then it has sadly deteriorated, and the company has called for $243 50 in assessments from the stockholders . . The annexed quotations exhibit the monthly fluctuations of the shares comprising the various companies embraced in the table. The price of each is given, as nearly as possible, on the 10th of different months, at which period, it may be remarked, most shares were in better favor than on any other day of the month, for the reason that nearly all dividends are declared at this time, and payable a few days thereafter.

Monthly Fluctuations of Mining Shares for 1866.

NAME OF COMPANY.	Jan.	Feb.	Mar.	April	May	June	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Alpha	$260	$370	$271	$430	$220	$300	$290	$305	$300	..	..	$150
Belcher	145	180	300	377	175	160	170	140	120	95	62	145
Bullion	93	64	100	117	67	60	58	26	25	10	13	16
Chollar-Potosi	139	222	290	310	290	200	185	173	115	102	100	245
Gould & Curry	25	49	75	90	56	20	60	50	58	56	55	90
Crown Point	565	995	1,350	1,350	1,050	700	700	925	840	940	900	1,200
Daney	9	7	12	14	10	8	..	5	4	3	3	3
Empire Mill and Mining Co.	250	210	280	210	180	121	112	115	75	79	106	207
Excelsior	8	7	13	10	9	7	3	2	2	..	..	..
Gould & Curry	885	1,000	1,000	950	850	745	725	725	710	550	450	775
Hale & Norcross	240	940	1,000	950	860	1,100	1,300	1,050	1,750	1,800	2,000	3,000
Imperial	113	121	177	150	130	112	104	94	96	80	106	145
Ophir	345	440	750	700	395	240	258	272	210	180	83	235
Overman	41	59	95	75	51	27	59	39	25	17	19	17
Savage	700	920	1,060	1,100	800	580	745	855	1,000	1,195	1,400	2,000
Sierra Nevada	10	6	12	9	8	3	5	2	3	2	1	6
Yellow Jacket	440	407	700	935	630	640	590	722	770	690	690	1,410

In presenting a brief review of the mining share market for the past year, it may be remarked that at the close of January most stocks had gained considerable strength, though the transactions of the Board for that month had fallen off about $1,000,000 from the sales in December, 1865. A better feeling manifested itself in February, and from that time until the close of April the volume of business increased, together with a very general rise in prices. The month of May exhibited a decline both in values and aggregate sales, and throughout the months of June, July and August, a marked degree of inactivity and flatness controlled the market, reaching the greatest depression in the last named month. The increased productiveness of the various prominent Comstock claims at the beginning of September again renewed confidence among dealers, and fully revived the buoyancy noted in the spring; however, prices were not so well maintained during the closing months of the year, with several notable exceptions, as they had been some eight months previously. The very favorable condition of most leading mines for several months past, and the very flattering appearance of the Comstock vein at present depths, gives great assurance of future prosperity. The unproductiveness of deep mining is an exploded idea, and a more united interest is now gaining ground among companies to assist in the speedy inauguration as well as completion of the great work known as the Sutro Tunnel. From a carefully compiled record of the sales in the San Francisco Stock and Exchange Board, we give the following very interesting figures, extending over a period of three years:

	1864.	1865.	1866.
January	$1,484,284 75	$1,901,508 75	$2,727,187 00
February	2,725,420 50	2,358,855 00	3,752,292 00
March	2,976,705 00	5,528,900 00	5,299,084 25
April	2,649,072 00	4,339,032 00	4,038,096 00
May	1,688,285 00	5,665,549 00	3,052,102 00
June	2,617,027 00	4,771,640 00	2,406,341 00
July	1,907,557 50	4,721,493 00	1,553,874 00
August	839,062 75	4,292,618 00	1,284,451 75
September	1,285,980 75	4,829,501 00	1,758,190 75
October	1,604,612 25	4,000,500 00	1,375,117 00
November	1,681,152 25	3,018,996 00	2,553,478 50
December	2,372,465 25	3,777,437 00	3,035,679 25
Totals	$25,832,715 00	$49,205,819 75	$32,835,893 50

making the total sales of the three years $107,874,428 25.....Hale & Norcross exhibited the most regular and rapid progression during the past year of any stock on the list, opening in January at $240, improving to $1,090 in March, receding to $950 in April, then gradually advancing to 1,800 in October, since which time no sales have publicly transpired. At the close it is firmly held, with bids at $2,500. The monthly bullion returns of this company have increased from $51,546 03 in February, 1866, to $167,034 89 in November, giving a total for those ten months of $1,055,419 87. This sum was produced from 22,626 tons of ore, showing an average yield of $46 65. Ten dividends have been disbursed to shareholders out of their net earnings during the year under review, amounting in the aggregate to $350,000. In the month of December, besides the regular dividend of $100, an extra one of $200 was declared, making a total distribution of $120,000 in that month.....Savage met with marked appreciation since July last, and from that period extensive deposits of ore have been disclosed in their lower levels. In January this stock sold at $700, steadily advanced to $1,190 in April, receded to $865 in July, and then rapidly improved to $2,050 in December, closing at $2,130 asked. The aggregate yield of bullion for the fiscal year closing with July, 1866, was $1,303,852 91, from 26,535 tons of ore, or an average of $44 14 per ton. During the five months ending with November last the yield has been $890,861 59 from 19,384 tons of ore, or an average of nearly $45 per ton. Taking half the product of the last fiscal year, say $650,000 as belonging to the yield of 1866, and we have a total of $1,540,861. From July to the close of the year $360,000 have been paid to stockholders in dividends. We learn from the mine that during the week ending December 29th splendid ore had been found in the southeast drift, on the seventh station, eighty feet southeast from Winze No. 2, while working towards the Curtis shaft..... Yellow Jacket exhibits a fluctuating record for the past year, selling at $440 in January, $935 in April, down to $580 in July, then at $770 in September, receding to $600 the next month; in December met with a rapid advance to $1,410, and closing yesterday at $1,235. The amount of bullion produced by this company during the past year has been about $2,300,000; the largest monthly yield was $379,700, in August, and the lowest in February - $96,500—and from this sum $390,000 were distributed to stockholders in dividends. One assessment of $180,000—$150 per foot—was levied in February, 1866. From the 1st to the 24th of December $116,712 73 have been accounted for in bullion, and that month will probably show a yield of $160,000. The news from this claim is very favorable, and it is said that the south mine is improving daily. No change is reported in the north mine, and during the rainy and inclement weather of the past month neither mill nor mine sustained any damage.....Crown Point increased in market value from $565 in the month of January to $1,300 in the month of April, sold at $950 in May, and $1,050 in June, dropped to $700 in July—during which month the bullion returns were meagre and amounted to only about $37,500—rallied to $925 in August, receded to $880 in September, and from that time improved to $1,200 in December, and closed yesterday at $1,370a1,360. The heaviest receipts of bullion during the twelve months of 1866 were in February, amounting to $155,461 63, and the lowest in July, as above stated. For the year the yield has been $1,273,503, from say 33,377 tons of ore; previously the mine produced $217,748 14, making a total of $1,491,251 14. During the past year this company declared six dividends, $50 per foot in March, $80 in April, May and June respectively, $50 in November, and the same amount in December, aggregating $234,000 .....Gould & Curry sold at $885 in January, reached the highest point during the year in February—$1,060—steadily declined to $450 in November, advanced to $775, and brought $620a625 during the past week. During the fiscal year ending November 30th, 1866, the bullion product of this company amounted to $1,635,383 92, being the yield of 58,163 tons of ore. March produced the most of this sum, $174,096 46, and July the least, $105,446 49. The bullion received in December was $108,427 14. This lessened yield is due to the necessary general repairs required at the mill, obliging them to run at half capacity during the greater part of the month. The ore product of that month was about 2,350 tons, of which 1,550 tons were delivered to the Gould & Curry mill and 700 tons to custom mills. Three dividends were paid in 1866—in January $50 per foot, in April $80, and in June $80—making an aggregate disbursement of $252,000 to stockholders..... Chollar-Potassi improved from $139 to $390, receded during the succeeding seven months to $102, and in December sold at $245, closing yesterday at $241. In the year just closed this company received about $850,000 in bullion, from say 47,800 tons of ore. A large amount of this ore was of a low grade and was sold at the mine at an average of about $1 per ton. .....Empire opened in January at $250, sold in March at $280, then declined to $75 in September, and from that period advanced to $207 in December, selling during the past week at $200. From a very full statement furnished us in regard to this mine, we condense the following: Bullion product of 1866, $486,771 78; dividends disbursed to stockholders, $52,400; and the amount of ore reduced was 19,750 tons..... Imperial advanced from $113 in January to $177 in March, gradually receded to $94 in August, then improved to $145 in December, selling at $135 during the past week. This company shows a bullion yield of about $909,150 in 1866, from 39,322 tons of ore. During the same year dividends to the amount of $176,000 were paid to shareholders .....Ophir rose from $345 in January to $750 in March, then rapidly receded to $83 in November, rallied to $235 in December, selling at the close at $160. During the fiscal year closing with November last $448,324 09 were received in bullion from 11,163 tons of ore, showing an average yield of about $40 per ton. In October of 1866 an assessment of $72 per foot was levied, and in December one of $60.....Alpha rose from $200 in January to $370 in February, fell to $271 in March, advanced to $450 in the following month, then receded to $95 in August, since which time it has been out of the market, until the close of December, when a few shares were disposed of at $150; last week sold at $200. During 1866 three assessments were levied, amounting in all to $144,560 .....Belcher sold in January at $145, advanced to $277 in April, then declined from month to month to $62 in November, rallying to 145 in December, and selling during the past week at $150a149. Three assessments were asked of the shareholders during the year under review—$60 in March, $45 in July, and $33 in October; total, $143,520 .....Overman fluctuated very materially during the past year, selling at $41 in January, $95 in March, then at $27 in June, and $50 in July, receding to $17 in December, and at the close brought $17 75. This mine produced $27,953 from February to September, 1866. Six assessments throughout the year required from the stockholders $208,060, of which sum only $152,346 has been collected to this date Bullion opened at $33 in January, advanced to $117 in April, gradually receded to $10 in October, rallying to $16 in December, and at the close of that month improving to $30a35, assessment of $10 delinquent, and closing yesterday at $37 50. Seven assessments of $10 each were levied during 1866, amounting to $175,000.

California.

From an exhaustive "Mining Review for 1866," which we find in the San Francisco *Mercantile Gazette* of January the 9th, we cull the following: Never before did the mining districts in the interior of the State present such a widespread scene of busy industry and general success as at present. From one end of the great mineral belt to the other we have the most cheering intelligence, the journals of that region abounding in accounts of immense yields, steady pay and big strikes. The clean-up of some of the hydraulic and gravel claims exceeds in amount anything before recorded, their returns, often for short runs, being measured only by thousands of dollars. But what is better than these extraordinary yields and big strikes, which of course are mostly confined to the large claims, being even there to some extent exceptive and occasional, is the gratifying fact that the mining community as a whole are doing well—perhaps better than ever before; judiciously bestowed labor throughout all that region being amply rewarded. There is employment, it would seem, for all, since those who do not care to work on their own account can readily engage with others, and generally on good wages, a condition of things most salutary and desirable, since it speaks not only of success to the few, but argues a solid and common prosperity.

Northern Counties.—Until recently very little attention was paid to the subject of quartz mining in the Northern group of counties drained by the Klamath, Trinity and the Upper Sacramento and their tributaries, including the country reaching back into Oregon—an extensive and highly auriferous region, both quartz and placer mines of great value abounding in many parts of it. Indeed, it is chiefly owing to the remunerative character of the placers, coupled with their remoteness and difficulty of access, and an absence of wagon roads in large sections of the country, preventing the transportation thither of heavy machinery, that so little has been done towards the introduction of mills and the development of the quartz veins, many of which, worked by arastras, have proved to be extremely prolific. So rich has some of the rock obtained at certain localities in that region been found, that considerable quantities have, at heavy cost of freight, been sent to San Francisco for reduction. Within the past few years a number of mills—the most of them of moderate capacity—have been erected at different localities in these northern counties, and in no instance have they proved failures, or even disappointed the expectations of the owners; and they present, especially to the more hardy and adventurous, as good a field, perhaps, for the further prosecution of enterprises of this kind as can be found in any other portion of the State. Though the winters there are somewhat rigorous, especially upon the mountains, mining operations can be carried on in the valleys with little interruption throughout the entire year.

Nevada.—The Grass Valley District continues to be the most important mining locality in California, and the magnitude of the quartz interests at this point has attracted more attention than ever during the past year. Here are to be found not only the most thoroughly developed, steady paying and productive claims in the State, but also the best evidences of permanency and future value at greater depths than have been attained elsewhere, except in a few instances. The following carefully prepared statistics will serve to show in some degree the operations and present condition of a number of mines in that district, beginning with the Eureka. This is now universally conceded to be a mine of extraordinary merit, and is probably one of the most valuable in California. The gross yield of bullion for the past year amounted to $596,053, and the dividends declared $360,000, an average of $30,000 per month. The company have now on hand about seventy-five tons of sulphurets, worth at least $30,000, and a large amount of wood, timber and other supplies, valued at $15,000. In addition, $27,000 were expended a short time since for new machinery and other improvements. It will thus be seen that the earnings of the mine, including actual dividends paid, have amounted to $432,000 for the year 1866. During that period 12,200 tons of ore were reduced, giving an average yield of more than $48 per ton. The Eureka has thus far been worked to a perpendicular depth of only 300 feet, and a length of 725 feet on the vein in stoping from the lower level. A new level is now being opened at 100 feet greater depth, and a new shaft is also under way. A one-fortieth interest in this property was recently sold for $17,500 .....The North Star has the advantage of being not only very thoroughly opened, but is also a mine of great prospective value. The main shaft is now down 750 feet, with a vertical depth of some 210 feet. The third level from the bottom extends 850 feet east, on the vein, the next above about 600 feet in the same direction, and the lowest or new level is just being drifted upon. The width of the vein throughout the mine will perhaps average two feet, and a very considerable portion above the three lower levels is virgin ground, extending to the surface. It is estimated that fully 30,000 tons of ore remain untouched in the reserves or backs, opened by means of drifts from the main shaft. This company have declared dividends at irregular intervals since 1852, and during the past five years a net profit of more than $500,000 has been realized. The gross product from their new 16-stamp mill for the past five months has exceeded $100,000, (the last monthly yield being $26,000,) and the net profits, in dividends, now range from $12,000 to $14,000 per month..... The Allison Ranche mine has not been very judiciously or profitably worked the past year, owing to a lack of harmony among some of the owners; but of late certain discordant elements have been overcome, and a more vigorous policy may now be anticipated. Drifts were started a few weeks since, at a depth of 500 feet, upon the lower level, and it is said that a very thorough development of the claim has been determined upon. The gross yield of this mine during the past ten years, since it was first opened, has been

about $2,300,000—the product for the three years ending December 30th, 1865, being $1,000,000, and for the past year less than $200,000.....The Ophir mine from 1852 to 1864 yielded about $1,000,000, and since it came into possession of the present owners—the Empire Co.—more than $500,000 have been extracted. During the past year some 3 750 tons of ore were reduced, producing about $175,000, or an average of $47 per ton. A magnificent 30-stamp mill was erected last summer, involving an outlay of more than $100,000, and $50,000 additional was expended upon a new shaft, hoisting works, etc. This shaft was unfortunately sunk in the wrong place, and the development of the mine thereby much retarded. Another shaft, supposed to be in the right locality, has now attained a depth of 200 feet, and drifts running upon the vein from the bottom of the old shaft are at present 110 feet distant from either side, which will soon give, it is thought, a large reserve of good ore, the ledge being three feet wide.....The Union Hill is located east of and on the same range with the Eureka mine. Recent developments at a depth of 200 feet show a chute of ore nearly 500 feet in length, varying in width from fifteen inches to five feet, and the incline is being sunk for a new level. A new 20-stamp mill was erected last summer, capable of crushing forty tons of ore per day. The yield of the ore varies from $18 to $40 per ton, and the bullion product of the mine has of late been as high as $1,000 per day. With further development at greater depths, this mine is likely to take a prominent position among the best paying mines of Grass Valley.....Gold Hill was the scene of perhaps the earliest quartz mining in California, and few mines have yielded more munificently. Operations were began here as early as 1850, by a large number of parties occupying small claims 50x 40, and the first Gold Hill mill was erected in 1851. An authentic history of this property cannot be obtained, but it is popularly supposed that during the fourteen years ending with 1864, at least $4 000,000 were taken from the entire hill, at a vertical depth of not more than 175 feet. Operations were suspended in the spring of 1865 until September last, since which time developments of a very promising character have been made in the north and south mine. In the incline, at a depth of 350 feet, and upon either side of the shaft in drifting from the bottom of the old shaft, 276 feet deep, a lode of fine ore, varying in width from 1 1-2 to 3 feet, has been disclosed. This ledge is identical with and some 500 feet north of the famous Watts Mine upon Massachusetts Hill, which yielded a net profit of $960,000 in three years and is doubtless a continuation of the same vein..... The Cambridge Mine has been very thoroughly opened during the past few months, east and west of the shaft, at a depth of more than 200 feet. The ledge shows an average width of two feet throughout the stopes, some of which extent to the old level above, exposing a face of 100 feet in height. This company erected last summer a substantial 10-stamp mill capable of crushing twenty tons per day, together with a very complete hoisting and pumping apparatus. Their mill was started a month ago, and the ore crushed thus far gives an average yield of $58 per ton.....The New York Hill mine is now said to be in a very promising condition, and some 500 tons of good ore have recently been hoisted to the surface. The Rocky Bar mill has recently commenced crushing for this company, and it is thought that it can be kept running regularly upon ore from the New York Hill mine alone.....The Norambagua Mine and mill was sold last August to parties in this city and Grass Valley for $100,000. During the past two months, under a more economical and judicious management, this property has been earning for the present owners an interest of about 4 per cent. per month upon the amount invested.....The Hueston Hill mine is also doing well, with an average product of 120 tons of ore per month, worth say $100 per ton. The cost of mining and reduction amounts to about $45 per ton, but notwithstanding this high cost the company within the past year have erected new hoisting works, involving an outlay of $30,000, and divided some $60,000 among the stockholders. The company are now at work in their 300-foot level, the north end of which is said to disclose ore worth $160 and $170 per ton.....The Lucky (adjoining the Cambridge), upon which a 15-stamp mill was erected last year; the Stockbridge, Ford & Riley, Scaddens' Flat, Rocky Bar, Boston, Ravine and Kate Hayes mines have all a good reputation, and may be regarded as claims of approved value.....There are many other good mines in this vicinity, and a number of them more than paid current expenses last year; but we have not the space to allude to them in detail.

Amador.—The Eureka mine affords a striking refutation of the theory that quartz veins, however rich they may be near the surface, become impoverished it not wholly valueless at great depths. This mine was opened in 1855, and the bottom of the main shaft is now 1,230 feet below the surface. Most of the ore extracted thus far has been taken from different levels, at a no greater depth we believe than about 930 feet; but a new or newer level is now being opened 270 feet still deeper. Less than 200 feet of drifts have been run from the shaft at this point, but sufficient explorations have been made to disclose a vein of pay ore averaging 16 feet wide. The pay chute in the levels above extends from 350 to 500 feet in length, and it is estimated that between the new or lower level and the 930-feet level 1,000,000 tons of ore, worth $15 to $17 per ton, can be taken. The yield of this mine during the past year has been about $450,000, the company's two mills having crushed 80 tons of ore per day. The gross product of this claim from 1862 to 1865, inclusive, exceeded $1,200,000, and since it was first opened it has doubtless produced more than $3,000,000.....Keystone mine is beginning to take high rank, and from October, 1865, to the close of 1866 some 9,000 tons of ore were reduced, yielding $175,000 During that period $75,000 were expended in the construction of a new 20-stamp mill and other substantial improvements, and $50,000 were disbursed to the owners in the shape of dividends. The total yield of this mine since 1851 has been about $1,100,000 The Seaton mine is now supposed to be in a condition to pay good dividends, $75,000 having been expended the past twelve months in the erection of a 40-stamp mill and a thorough development of the ground belonging to the company. Their new mill commenced running December 18, and is capable of crushing at least 60 tons of ore per day..... A large number of other mines in Amador county are in a dividend paying condition, but reliable statistics respecting many of them are not at our disposal at present.

Tuolumne.—The well known Soulsby mine, from which more than $1,200,000 has been realized in bullion, is now doing rather better than for several years past. The vein of pay ore in this mine extends a distance of more than 1,700 feet in length, but is sometimes very narrow and exceedingly difficult to work. During the past three years it has yielded some $400,000, and without, however, adequately compensating the owners, has made fair profits .. The App mine has worked between 1836 and 1850 at intervals, but uninterruptedly since this latter date, and with a very regular yield of the quartz. From May 1, 1859, to Sept. 1, 1866, 8,027 tons of ore were crushed, yielding an aggregate of $124,575, or an average of $15 52 per ton. The expenses of mining and milling have meanwhile averaged $7 47 per ton, showing very good results in a small way.....The Rawhide Ranch mine passed into the hands of Eastern owners some time since, and is now being well opened. About 1,500 tons of ore were extracted during the past year. The ledge in the deepest shaft, 200 feet from the surface, is said to be ten feet wide, most of which contains fair pay ore. The company have a 20-stamp mill complete in all respects .....The gross yield of the Golden Rule mine for 1866 amounted to $32,454 from 3,000 tons of ore, an average of $10 75 per ton. During the year 1865 four dividends, of $1,500 each, were declared. In the past year $13,000 were expended in the erection of a new 15-stamp water mill, and two dividends of $1,500 were paid.

Kern.—From several of the leading mines of this county we have favorable advices.....The Joe Walker company in October last completed a 20-stamp mill, which has been kept running for the past six weeks, giving an average daily yield of about $1,200 from 30 tons of ore. One-sixth of this mine was recently sold for $30,000 to parties in this city. The entire property was purchased in June last for $2,000. The ledge is opened to a depth of 200 feet, with an average width of five feet .....The Long Tom mine, located about 25 miles west of Havilland, continues to give good results. Receipts of bullion, from a 10-stamp mill, for the month of October were $16,500, and in November $17,500. During the month of December they will amount to $20,000. The entire expenses of the mine and mill are said to be less than $3,000 per month. The lode is now being worked at a depth of 200 feet, and varying in width from three to eight feet.....The Mammoth company have just erected a first-class 20-stamp water mill on Kern river, located eight miles north of Havilah. This company have a number of promising leads in that locality, but are now working the Mammoth, once famous for its richness. Prior to the flood of 1861–62, which swept away the mills of the old company, over $1,000,000 was taken from this claim. The new company commenced operations last spring.

Sierra.—The Sierra Buttes mine, located twelve miles east of Downieville, continues to maintain its former prestige. It was first opened in 1851, and worked with arastras until 1856. Since 1857 the total yield of bullion has been $1,300,000, with a net profit of some $850,000 in dividends. During 1866 the product of the mine exceeded $200,000, and the net earnings were about $130,000. This mine shows one of the largest pay lodes in California, and is worked by adit levels, with almost inexhaustible backs. The crushing capacity of the company's mill, propelled by water, is 780 tons of ore per month; the total cost of quarrying and crushing it is $4 50 per ton. It is said that a refusal of this property for sixty days has been obtained by Philip S. Van Rensselaer and L. W. Coe at the rate of $575,000, with a view of placing it in New York at higher figures.

Placer.—Much attention has been directed of late to a class of gold-bearing deposits in the rocks without any well defined quartz veins, and hitherto known to only a few persons as containing sufficient gold to be worked with profit. These deposits are found in the copper-bearing belt west of the main gold belt west of the State, and in the foot-hills of the Sierra. Several of these deposits, now known to be rich in gold, were first located and opened as copper claims, the rusty, ochreous outcrops, known among California prospectors as gossans, or as *calico rocks*, from their variegated colors, being supposed to indicate the presence of copper ores in depth. In excavating for copper, the soft, ochrey slates were found to contain gold. The Banker or Harpending claim at Whiskey Hill, in Placer county, near Lincoln, has this character, and has been worked on a moderate scale with a five-stamp mill during the past year. The hill rises one hundred feet above the plain, and the metalliferous outcrop is from two hundred to three hundred feet in breadth and about five hundred feet in length. Over the whole of this surface the slate outcrops are charged with iron rust, and appear in some places like great blocks of iron ore. On digging down the rock becomes softer, is more sandy or talcose, and shows free gold almost everywhere when washed. The material is excavated in an open cut or quarry, is loaded into cars and conveyed to the mill on a tramway. The softness and abundance of the material allows it to be excavated and worked at a very small cost; from thirty-five to forty tons are passed through the mill in twenty-four hours, being at the rate of seven or eight tons to a stamp. An abundance of water and very coarse grates are used, and the material which passes the batteries is ground in large flat-bottomed pans, known as Moore's grinders. Even with this rude and imperfect way of washing, the material is said to have yielded from five or six dollars per ton —an amount which it is thought may be doubled by a more effectual style of working. The immense quantities of this gold-bearing material above the water level, and in a condition to be so rapidly mined and crushed, arrested the attention of some of our enterprising mining capitalists during the past summer. Their investigations resulted in a purchase of half of the above described grounds near Lincoln, and the erection of a forty-stamp mill thereon, which is now ready to run.

Calaveras.—Other deposits of a similar nature are found to exist in Calaveras county, one of the most prominent being Quail Hill, near Telegraph City, formerly known as Huges' Diggings. At this place the soft slates are variously stained and colored by the oxyds of iron over a length of one thousand feet, a breadth of about three hundred feet, and a depth of one hundred and eighty feet above the water level. They show gold freely when washed or sluiced, and have given very satisfactory results by working in this way for some years past. A shaft has been sunk through these slates to a depth of one hundred and ten feet, at which point some of the rock yielded one hundred dollars per ton, by working tests. Ores selected from various parts of the hill yielded by mill process an average of thirty-six dollars in gold and nine dollars in silver. It is estimated that the cost of mining and milling this soft slate will not exceed one dollar per ton.

Oregon, Idaho, Washington, &c.

Thirty-five years ago, says the *Herald*, the total annual supply of the precious metals throughout the world did not exceed $30,000,000 per annum. Upon the discovery of the gold fields of California, the civilized world was astonished at an annual yield of more than $40,000,000 from this country alone. By this sudden augmentation of treasure from American mines, grave apprehensions of a speedy change in the relative values of the precious metals were entertained by not a few of the leading financial men and crowned heads of Europe; but with this increase of the bullion of the world, the activity of all industrial pursuits, the productions of commerce and the necessities of trade have kept equal pace .... The total production of gold and silver from the mines of the Pacific coast, as estimated from mint statistics and other reliable data, for the last six years may be stated as follows:

1861.....	$52,000,000	1864.....	$65,000,000
1862.....	58,000,000	1865.....	69 500,000
1863.....	61,000,000	1866.....	76,000,000

California alone produced in 1865 about $42,000,000, and the coinage in the mint at San Francisco for the same year was over $19,000,000, an amount equal to the entire gold product of the world less than twenty-five years ago .....The annual production of gold and silver, not only from California, but also from Oregon, Nevada, Idaho, Arizona and Washington, has nearly all entered into the trade of San Francisco, and in the commercial world the grand aggregate of the precious metals gathered from all these Pacific States and Territories, until the annual supply has reached the sum of $70,000,000, has been almost altogether accredited to California. For seven years Nevada has been pouring over the sierras its augmenting flood of silver, the assayed bars alone from that State for the fiscal year 1866 rising to the sum of sixteen and three-quarter millions of dollars, and meanwhile the vast region drained by the Columbia river has been sending through the Golden Gate, by way of the ocean, its wealth of placer and of ledges, swelling the great aggregate by from five to ten millions annually. An examination of the most reliable sources of information discloses the fact that the annual production of gold dust and gold and silver bullion,

which for the past four years has been flowing out of this great basin of the Columbia, has reached figures far beyond the general estimate of commercial men, showing that Oregon and Idaho are rapidly gaining rank in their relative positions with California and Nevada as gold and silver granaries..... The statistics of shipments of treasure per steamer from Portland, Oregon, to the port of San Francisco, for two years and a-half, are as follows :

	1864.	1865.	1866.
January	$467,000	$288,500	$539,500
February	327,859	189,537	390,500
March	312,190	203,000	428,000
April	322,714	168,000	391,000
May	472,370	294,500	426,500
June	899,407	864,000	471,000
July	821,283	555,446	—
August	964,974	682,500	—
September	481,500	836,900	—
October	992,200	232,000	—
November	916,250	620,000	—
December	589,500	1,586,396	—
Total	7,566,250	6,511,779	2,915,500

RECAPITULATION.

Total for 1864	$7,566,250
Total for 1865	6,511,779
Six months of 1866	2,915,500
Total for two years and six months	16,993,529

Let it be borne in mind that this statement includes such treasure only as appears upon the manifests of steamers. Between Oregon and California three steamship lines, besides sailing packets, are running to and from Portland, and the low rates for freight and passage inaugurated by the competition, are operating favorably to a full development of the trade upon that coast. By every steamer there is a large amount of treasure passing out of the country, chiefly in the form of gold dust in private hands, that does not enter into this account. Much of this, when assayed in San Francisco or elsewhere, is accredited in the estimate of the yield of the locality where it may be assayed. Of a shipment of the treasure made from Portland, November 11, 1865, by the steamer Orizaba, the *Oregonian*, a leading paper of the State, says :—If it were possible to take the whole amount into account, there would show for the trip an aggregate export of gold and silver of nearly $1,000,000 ; we have $499,000 by actual report, and there are at least 600 passengers to swell the estimate. Almost the entire amount of treasure shipped on Saturday, including the silver, was but from one of the many districts of the northern mines, Owyhee. In the foregoing statistics it may be observed that the shipments during the last six months of 1864 and 1865 respectively exhibit a large increase over the first six months of the corresponding year. A further shipment of treasure in 1866 has been reported for July—$1,145,000 ; August, $1,109,000 ; and by reason of many new discoveries in the year, and a known large increase of bullion from the southern portion of Idaho, the amount shipped during the four concluding months of 1866 will not fall short of $3,000,000, thus giving as manifested treasure from the Columbia river to San Francisco for three years a total of $22,247,529. The *Dalles Mountaineer* and *Walla Walla Statesman*, both papers published at thriving towns on the Columbia, state the amount of treasure which passed down the river during the summer and fall of 1865 at over $2,000,000 a month, nine-tenths of which was gathered from the limits of Idaho. The whole production of gold and silver bullion in our country is very reliably indicated by the internal revenue tax, and the returns made to the commissioner at Washington City afford some evidence of the comparative yield of different mining sections. Bullion was first taxed under the act of June 30, 1864—the tax being one-half of one per cent. ad valorem. By the act of March 3, 1865, this tax was increased to three-fifths of one per cent. The collection of this revenue is required to be retained and accounted for by the assayers in all cases ; and the assay must be stamped on all bullion, whether in lumps, bars, ingots or otherwise. The collections for the fiscal year 1865, under this law, were for only nine months of the year —the first returns to the Commissioner of Internal Revenue being made in October, 1864. The official statement of the tax collected on all bullion assayed in each State and Territory of the United States for the nine months of the fiscal year ending June 30, 1865, and the year ending June 30, 1866, shows that California and the country comprised within the basin of the Columbia river are accredited with more than two-thirds of the whole revenue. The aggregate assays for the three-quarters of the year 1865 amount to $73,560,937. Of this California furnishes $46,975,972 ; Oregon, Idaho and Washington $3,877,982. The aggregate assays returned for 1866 are $81,389,541. The returns from Neveda for June have not yet been received, but are estimated at $1,500,000. Total for the fiscal year 1866, $82,889,541. Of this California furnishes $49,020,250 ; Oregon, Idaho and Washington $5,459,870. Not less than four millions per annum of the amounts of bullion, assayed and taxed in California, was unquestionably from the Columbia river region, as other statistics herein show. A very considerable portion of the bullion which during the last four years has been assayed in New York and Philadelphia, came from Oregon and Idaho, having been carried eastward from the mountains by overland stages and private conveyance. The annual report of the director of the mint for the year ending June 30, 1866, shows the following amounts of gold deposited at the Philadelphia mint from this region of country for each fiscal year since June 30, 1862 :

Year.	Oregon.	Idaho.	Washington.
1863	$7,910	$1,816	$18,593
1864	14,192	847,782	7,347
1865	11,491	1,400,863	—
1866	46,521	286,000	—
Total	80,115	2,536,862	25,911

The amount deposited at this Mint prior to July 1, 1862, was from Oregon..... $63,355
From Washington..... 215

This report also gives the deposits of gold at the Assay Office in New York, during the same time, as follows :

Year.	Oregon.	Idaho.
1863	$7,815	—
1864	8,650	$201,288
1865	9,876	—
1866	8,703	205,844
Total	35,044	407,132

The amount deposited at this Assay Office prior to July 1, 1862, from Oregon was $11,833. From the same report is taken the following exhibit of the amount of gold from the Columbia river region deposited at the Branch Mint at San Francisco to the close of the fiscal year ending June 30, 1866 :

Year.	Oregon.	Idaho.	Washington.
1862	$888,060	—	—
1863	3,001,104	—	$12,672
1864	2,139,305	$1,257,497	—
1865	1,103,076	3,499,281	22,640
1866	858,443	2,880,203	—
Total	7,989,918	7,736,972	35,132

No account appears in the report of gold deposited at the San Francisco Mint from this district prior to 1862 ; all the treasure produced from the basin of the Columbia before that date and deposited at San Francisco is doubtless included in the California yield. Within the last two fiscal years ending June 30, 1866, there was deposited at the Branch Mint in Denver, Colorado, the following amounts :

Of Oregon gold	$2,007
Of Idaho gold	90,860

RECAPITULATION.

Total amount of gold deposits in the mint and branches to the close of year ending June 30, 1866 :

Oregon	$8,182,274
Idaho	10,771,187
Washington	61,620
Total	19,015,372

A careful examination of the sources of the gold mined in the United States, and of statistics showing its final destination, gives decided evidence that, by as near an approximation as practicable, the amount of deposits at the mint and branches of the United States embraces one-third of the total product of the mines. It may, therefore, be positively assumed that the grand aggregate of the gold yield from the territory comprised within the great basin of the Columbia, has reached the sum of $57,000,000. For the first five years after the discovery of the gold placers of California, the product of the Pacific coast was nearly all brought to the eastern mines. The deposits at Philadelphia, New Orleans and New York from 1849 to 1854, ranging from $6,000,000 to $56,000,000 per annum. Two years after the establishment of a branch mint at San Francisco in 1854, the gold deposits at that branch rose to $29,000,000 for a single year, and the average annual deposits for twelve fiscal years, ending with June 30, 1866, have exceeded $17,000,000. Three times the amount of these deposits is very approximately the amount of the total gold yield of California for the same period. Until 1862, when the risks of transit in American vessels caused a large diversion of treasure from the Isthmus to Europe, the greater portion of the gold product of the Pacific coast continued to flow to New York ; but in that year, by reason of the insecurity from rebel privateers on the Atlantic, the destination of the gold leaving San Francisco was, in a great degree, changed to England and other foreign countries, and this peculiar movement continues apparently unabated. Large sums, declared to be on account of eastern domestic owners, and intended for remittances ultimately to New York, were thus sent to England without being entered or cleared as exports at the San Francisco Custom House. The extent of this diversion was not observed by the proper government officials until it had passed through nearly two fiscal years.

The reported and actual exports of treasure from San Francisco to foreign countries for two years is as follows :

	Reported.	Actual.
1862-63	$3,529,755	$21,737,614
1863-64	6,285,055	42,020,0000

In the foregoing statistics of the amount of deposits in the United States Mint and branches, no account whatever is taken of the silver produced in the Columbia river basin, nor of gold "parted from silver" in the mints. The disclosures of the past year show that Idaho embraces within her borders some of the richest silver mines in our country, and that, with an increased population and judicious expenditure of capital, she will shortly rival Nevada in her yield of that metal. Previous to the opening of the Comstock lode in 1849, there were no proper silver mines known within the territory of the United States, and although there are several localities where a small amount of this metal had been obtained from lead ores, the silver furnished by this country had chiefly come from being parted from native gold. Upon the marvellous yield of treasure produced from the Comstock and other silver mines which lie on the eastern slope of the Sierra Nevadas, prospecting and discovery was stimulated throughout all that vast region of metalliferous ranges lying between the Cascade and the Rocky Mountains, and extending northward into the great Columbia river basin In the Summer of 1863, the mining district of Owyhee, in southwestern Idaho, was discovered and occupied by the pioneer miners, and in the fall of 1864 and spring of 1865, many of the richer ledges were located and opened. Within this brief period there have been erected ten quartz mills, with an aggregate of one hundred and two stamps, and there has sprung up a thriving mining town, and a county seat of over 2000 inhabitants. The following is a comparative statement of the entire deposits of domestic gold in the mint and branches, from the several mining States and Territories named, for the three fiscal years 1864, 1865 and 1866, ending June 30 of each year :

	1864.	1865.	1866.
California	$15,071,422	$13,332,236	$14,598,191
Nevada	1,018	6,925	50,105
Oregon	2,162,147	1,125,673	914,436
Idaho	2,306,568	4,971,454	3,391,997
Colorado	2,136,684	1,622,249	1,108,471
Montana	.....	1,767,381	5,505,074
Washington	7,347	22,460	2,232
Arizona	3,889	21,692	80,430
New Mexico	.....	3,924	3,155
Total	21,689,079	22,873,963	25,514,094

This table includes all the gold deposited from those States and Territories, except that "parted from silver." The amount credited to Nevada shows her treasure to be almost exclusively in silver, her yield of that metal for 1866 being above $18,000,000. These statistics also show that Oregon and Idaho have deposited, in the three years, $2,822,000 more than Colorado and Montana, and that in her gold production Idaho (Montana, ED. JOUR. OF MINING,) ranks next to California. This difference of treasure would more largely appear by an account of Idaho silver. Three times the amount of these respective deposits will give approximately the total gold yield of the different mineral districts of our country.

COPPER.

California.

It is now six years, says a San Francisco exchange, since copper became the subject of mining enterprise in California. Prior to that time, although great numbers had been discovered, not a single vein had been opened to any depth, nor had the receipts of ore at San Francisco amounted to more than a few hundred tons, extracted from veins in the vicinity of Crescent City, with some small lots previously received from Arizona. With the development of the mines at Copperopolis the product of this ore began, and it soon became, and has ever since continued to be, one of our staple articles of export. The shipments abroad, however, have been less for the past than they had been for some preceding years, owing to such material advancements in freights to foreign ports as to preclude the further shipment thither of certain low grade ores, which had previously thus been disposed of with profit. This falling off is in no manner to be attributed to any want of ore or curtailment in the working capacities of our mines, but simply to the above fact—freights to eastern copper marts, which all our ores must seek, having been raised, within the past year, from seven and eight to sixteen and nineteen dollars per ton. From this it will be seen that ores worth no more than nine or ten dollars per ton in this city, could not be disposed of at all—the margin left above transportation to market not being sufficient to cover insurance and other extra charges—thus rendering valueless a large class of ores that formerly came forward from Copperopolis, and to that extent, at least, diminishing shipments. A vessel lately left this port carrying a cargo of copper ore on a freight of $16,000, that had, on a former occasion, taken a similar quantity for $5 000. The reasons for this advance in freights are various, and well known to commercial men—the principal being the large quantities of other commodities now offering for shipment from this coast, to some of which—as for example oil—the presence of copper as a part of the cargo proves injurious, and is sometimes declined as freight for that reason. A further cause for this falling off in the turn-out of our copper mines is the great depreciation this metal has undergone in all the great marts of the world, still further discouraging the extraction of ores, especially those of low grade. The ores obtained in this State are all of a similar character, and come chiefly from the mines of Calaveras and Amador counties, though cupriferous veins have been found in many other parts of the State, and some of them developed to a point of limited production. That our resources in this metal are great is now conclusively proved, both by the wide distribution of the veins, and the evidences of abundant mineral wealth contained in a large number of those fully opened or partially prospected, and there no doubt but what, with the return of a market for our poorer class ores, and such further reduction in

the prices of labor and the cost inland of freights as shall be effected through the introduction of railroads, this branch of mining will be greatly stimulated, and ultimately become one of the most extensive and lucrative in the State. Copper smelting works have been erected at a number of points in California, being mostly on a small scale, and in the vicinity of the mines from which the ores operated upon are extracted; but owing to the high prices of labor, and other causes incident to the condition of things on this coast, the larger of these works have suspended operations, most of the smaller continuing the same with success. The quantity of copper ore received the past year in San Francisco, whence all shipments to eastern ports are made, amounted to 22,382 tons, valued at $1,800,000, against 25,000 tons in 1865, value $2,000,000, 13,300 tons in 1864, value $1,094,660, and 5,900 tons in 1863, valued at $512,000. It is thought the yield of our mines will be much larger the present than it was the past year, there being reason to believe the price of this metal will recover from its present depression abroad, and that freights hence may be somewhat abated. At present, only ores containing at least twelve per cent of pure metal meet with ready sale in this market, though under ordinary circumstances, those of much less value will, no doubt, find ready purchasers, as three per cent. ores, and even those of lower grade, can be reduced at Swansea with profit .... Commissioner Browne reports that the copper resources of the Pacific coast are becoming important. The following table shows the exportation of ores from San Francisco since 1862:

Year.	To New York. Tons.	To Boston. Tons.	To Swansea. Tons.	Total Tons.
1862....	86	3.574 16-20	—	3.660 10-20
1863....	1.337	4.208 15-20	7 15-20	5.553 10-20
1864....	4.805 16-20	5.064	264 7-20	10.234 3-20
1865....	4.146 3-20	9.050	2.591 16-20	17.787 19-20
1866....	7.676 10-20	3.415 5-20	10.384 15-20	21.476 10-20

The Mariposa *Gazette* says: In Hunter's Valley work is in full progress on the La Victoire copper mine. The company have ten to twelve hands constantly employed, and are down several hundred feet. Haskell's patent process for reducing the copper is used here successfully. The general prospects of this copper mine may be said to be good.....Operations on the Buchanan Hollow copper mine have been suspended for about three weeks, but it is confidently stated that work will be resumed there next Monday. The mine is down about 140 feet, and shows a vein of copper four feet wide. The proceeds of the concern are over $2,000 per month, but the working expenses are very heavy, and considerably in excess of the product.....The Amador *Ledger* says: A short time since we mentioned that a very rich deposit of ore had been found in the lower level of the Newton copper mine. The deposit, instead of being a mere "bunch," is proving to be an extensive mass, and even richer than at first reported.

Nevada.

In every part of the State, says the *Reveille*, large and rich veins of copper ore are founc, of the different varieties of sulphurets, pyrites, glauce, red oxide, etc. We doubt if, in any part of the world, richer ores of copper, or in greater quantities, can be found. There are veins of copper in San Antonio, Palmatto, Clarendon and other districts on the south, in our own neighborhood, and in Ravenswood, Kinsley and Battle Mountain districts, lying to the north. From all of these, and many other sections, quite large quantities of ore are, from time to time, brought to this city for exhibition. As an instance of one mine, we will present the Dunderberg ledge, of Battle Mountain district, which is represented as being two hundred feet in width, and composed of the red oxide of copper, quartz and limestone, with such an abundance of ore running in small veins through the mass, that miners engaged in prospecting the ledge say that enough could be obtained of fifty per cent. ore to give home freights to all the ships that come to San Francisco. It is a beautiful ore, very heavy and brilliantly red, and its mining must certainly prove profitable. So great an abundance of these ores is found, and of so high a grade, that the copper mining interest of the State bids fair to be scarcely second in importance to that of silver. But this, like every other great interest, awaits the completion of the railroads. Hurry along the iron roads, and Nevada will pay for them and keep them busy.

IRON.

Pennsylvania.

The Pottsville *Standard*, Feb. 2nd, says: The Mammoth Vein Coal company propose to erect two furnaces immediately, near the McGinnes shaft, on their land at Mill Creek. This is an excellent location for furnaces, being close to the ore, the coal, and the railroad known as the "Short Road." There is probably no better location in the State for iron works. .....The McGinnes vein of black-band ore is thicker than is generally supposed. That part of it now being worked ranges from three feet to six feet in thickness.....Black-band iron ore is reported to have been discovered in the vicinity of Tamaqua. The belief is now generally entertained that this ore exists throughout our entire coal region. The matter is attracting much attention in our large cities, and many capitalists are already seeking favorable opportunities for engaging in the iron business here .. The Mt. Carbon rolling mill company intend to erect a furnace in connection with their rolling mill at Mount Carbon. This enterprise will no doubt be a profitable one, on account of the proximity of the coal beds and the iron ore.....The Hamburg rolling mill company propose to erect a furnace at Hamburg. The idea of building a furnace there seems rather ridiculous. Why not build it somewhere in this vicinity, or still further up, where coal can be had direct from the mines, without the trouble of transportation? The same rule will apply, with still greater force, to the proposed furnace at Limerick, where the disadvantages in regard to the transportation of iron ore and coal are still greater .. We learn that the Philadelphia and Reading railroad company intend to build a furnace and rolling mills at Reading, for the purpose of manufacturing their own iron. Although the company will have the advantage of transporting their own raw material, it would be a great saving to them if they should have their iron works erected at this end of the line.....The proper location for iron and steel works is in the anthracite coal region. Here we have the iron ore, the coal, the limestone, and in fact, everything required for the rapid and cheap production of iron and steel. To invest money in the erection of iron works at places where all the materials must be transported from a distance, is suicidal policy. .....The *Journal* of same date says: The first shipment of twelve cars, carrying about 60 tons of black-band ore, was made from this region on Thursday last, to the Montgomery iron company, Port Kennedy, by John Shippen, Esq. The ore was mined at Mr. McGinness' shaft, on the North American company lands. The gangway on this vein has been run about 50 feet, and the bed continues very uniform, three feet in thickness, and produces about three tons of ore per cubic yard. At the St. Clair furnace, where upwards of one thousand tons have been used, the yield, as near as can be ascertained, is about 33 per cent. Some represent it richer, but this is rich enough. This vein is supposed to lie above the Diamond and below the Big Tracey. This location, however, is disputed by some. This bed has not been opened in any other part of the region, as far as we can learn. In addition to this bed, the following are known to exist:—A bed ranging from 18 inches to four feet in thickness above the Buck Mountain or B. vein. This bed runs regularly, and its average yield will be about 30 per cent.....Another bed lies above the Mammoth vein, which ranges from twelve inches to two feet, and is found imbedded in from five to six feet of slate. This bed runs apparently regular, and will yield 30 per cent. It is exposed in Hickory colliery at St. Clair. Another bed has been cut in several places lying above the Primrose, G., ranging from 12 to 24 inches, which will yield about 33 per cent. This vein has been cut at other points and appears to run very regularly. These are all the largest veins that have yet been discovered, and which can be worked advantageously. There are a large number of smaller beds ranging from two to six inches, making in the aggregate from ten to twelve feet of ore. Such beds are worked in Wales, where the measures in which they lie are not as hard as they are in this region. Ours, of course, will not be worked to any extent so long as the larger veins are available. From all the reliable information that we can learn at present, the aggregate thickness of iron ore beds in this region, including large and small, will range from 20 to 24 feet in thickness.

Michigan.

The Marquette *Journal* says: The Schooleratt iron company have organized and purchased from the Grant mineral land company, a body of 40,000 acres of excellent timbered land, south of Grand Island bay, where they propose to put up one or two furnaces next year.....Following is a summary of the iron ore and pig iron produced in the Marquette region in 1866:

IRON ORE.

	Gross tons.
Jackson Iron Co	85 503
Cleveland I. M. Co	43,157
Marquette Iron Co	7,910
Lake Superior do.	68,002
Pitts. & L. Angeline Iron Co	26,858
New York Mine.	35,280
Washington Iron Co	15,150
New England Mine	3,150
Parsons Mine	3,002
Iron Mountain Mine	6,860
Iron Cliffs Mine	not reported.
Total	296.872

PIG IRON.

Pioneer Furnace	1,650
Collins do.	4,022
Bancroft do.	2,895
Northern do.	2,687
Morgan do.	3,749
Greenwood do.	3,434
Total	18,437

Of these amounts, 197,351 tons of iron ore and 15,020 tons of pig iron have been taken eastward by the Marquette and Ontonagon railroad.

Missouri.

The specialty of Missouri, says the St. Louis *Dispatch* of January 26th, is a great one, requiring numerous hands and money resources of great magnitude; and it is well for the State and the Union that the advantages we hold out are appreciated. Many countries have been famous for their mineral treasures, but never yet has been seen such a sight as the Iron Mountains of Missouri. Three huge mountains, not far from each other, are solid masses of pure iron. Pilot Knob, Iron Mountain and Shepherd's Mountain. These are famous the world over among iron men and mineralogists. Not a fortnight ago we noticed a reprint of the London *Telegraph*, which spoke of the Iron Mountain of Missouri. A mountain of iron! It seems like the mad, fantastic dream-story of Sinbad the Sailor, who, in one of his travels, approached in a vessel a mighty black mountain, which was iron, and magnetic; and when the ill-fated ship approached to a certain distance every nail, bolt and bar flew from the wood, and the vessel fell to pieces. So towers, indeed, Pilot Knob, not far from the Mississippi; but the metal is not magnetic, and our floating palaces steam by and regard it not—yet the lasting wealth of these monstrosities of nature is beyond computation.

QUICKSILVER.

California.

The San Fransisco *Mercantile Gazette* of Jan. 9th, says: Quicksilver has a pretty wide distribution in this State, its principal deposits being confined, however, to the coast range of mountains, in which and its lateral ranges it occurs in many places in seeming abundance. The principal and most prolific mine in the State, however, if not in the world, is that of New Almaden, in Santa Clara county, sixty miles south of San Francisco, from which comes more than ninty per cent. of all the metal produced in the State. The capital of this company is $10,000,000, employing a force varying from twelve hundred to thirteen hundred hands, their current expenses being about $800,000 per year. The quantity of quicksilver produced during the year 1865 was 41,194 flasks, of 76½ lbs. each, being equivalent to 3,610,341 pounds, showing a monthly average yield for the year of 3,833 flasks. The total amount of ore raised and reduced during this period was 19,000 tons, averaging 12-42 of metal. The average per cent. for 1864 was 16.40, and for the preceding ten years 22.20, indicating that with their present facilities for mining and treating the ores the company are able to work with a profit a much lower grade than formerly, rather than a constant impoverishment of the ores, as might from these figures be otherwise inferred. The product of this mine for the past year has been about 39,500 flasks, an amount that will probably be maintained, if not largely increased, in the future. The value of this mine is estimated at from eight to ten millions of dollars, its annual revenues varying from $1,000,000 to $1,200,000. The New Idria mine, deemed next in importance to New Almaden, is situate in the extreme western part of Fresno county, and on the Tulare side of the coast range, and about one hundred and thirty miles southwest of San José. Some years ago it was at great expense developed to a productive condition, and for a time was worked with satisfactory and encouraging results. After this it was closed by litigation, and remained in a state of suspense for several years, when work upon it was again resumed, and during the past year has produced at the rate of 500 flasks of quicksilver per month. The company employs a force of hands numbering between two and three hundred, their net monthly earnings varying from ten to fifteen thousand dollars. The Gaudalupe and Henriquita mines situate in the vicinity of the New Almaden, have each produced a small amount of metal, but for some time past little has been done upon them. The (Redington) Lake Manufacturing company's mine, in Lake county, was opened in 1862, from which period to the present it has turned out about 10,000 flasks of metal. The present lessees employ about one hundred men, and with recent additions made to their works, and favorable appearance of the mine, it is calculated that they will be able to largely increase its products hereafter without any great additional expense. Cinnabar in surface quantities, indicating the existence of valuble deposits, has been found at a great many other points in the coast range, and in a few cases some limited works have been erected for its reduction, but none of these have as yet assumed an importance requiring further notice in this place. The exports of quicksilver which cover about one-third the amount produced in the State have been for the years named as follows: for 1860, 9,448; for 1861, 35,995; for 1862, 33,747; for 1864, 36,918; for 1965, 42,469, with an export for 1865 of 30,287 flasks. For full details as to exports, price, product, and consumption, our commercial columns may be consulted.....Under its market review the same paper says of quicksilver: "This important staple is yet entirely controlled by capitalists, who still adhere to 60 cents per pound,

whether for export or local use. The monthly receipts from the New Almaden mine in 1865, as taken from the books of the company, and the estimated receipts in this city from the New Idria and New Almaden combined for 1866 are shown by the following:

	1865. Flasks.	1866. Flasks.
January	3,768	4,524
February	3,512	3,684
March	3,427	4,557
April	4,650	2,535
May	4,501	2,877
June	4,000	3,415
July	3,710	3,830
August	4,500	3,779
September	4,606	3,491
October	3,010	4,080
November	3,839	2,221
December	4,271	1,731
Totals	47,194	40,725

Of the Redington company and the Gaudaloupe mines we have no positive knowledge, in fact all details of the actual product of each and every mine named is purposely withheld from the press; it is a sealed book to all outside of the ring. The reader, however, may be assured that under their existing contract they are turning out to the extent of their full capacity. Heretofore, as now, the New Almaden mines have furnished the bulk of our supplies; but it it proper for us here to state that the Redington company produced in the aggregate, since its opening in September, 1862, up to January 1st, 1865, 6,755 flasks. The exports to the different countries for 1866, and the previous three years were as follows:

To	1863.	1864.	1865.	1866.
New York	95	1,495	6,800	3,800
Great Britain	1,062	1,608	10,400	3,000
China	8,889	18,908	14,248	10,252
Mexico	11,500	7,483	2,789	2,561
South America	3,876	6,974	7,500	5,000
Australia	300	100	200	575
British Columbia	42	21	24	6
Other Countries	160	337	508	93
Total flasks	26,014	36,927	42,469	30,287

And our exports previously have been:

	Flasks.		Flasks.
In 1862	33,747	In 1857	27,972
In 1861	35,995	In 1856	23,740
In 1860	9,448	In 1855	27,165
In 1859	3,399	In 1854	20,963
In 1858	24,142		

COAL.

California.

The San Francisco *Mercantile Gazette*, Jan. 9th, says: For the purpose of analyzing the changes which have been gradually taking place for the past few years, we submit the following approximate statement of coal statistics, going back to the opening of our Mt. Diablo mines. It may be well to explain that the falling off in 1865 was due principally to the great decline in Anthricite coal for that year, owing to the over-importations of the previous year (42,000 tons), stimulated by the high prices ruling at the close of 1863. It may also be stated that we have added to the reported receipts of Mt. Diablo coal for this year 5,000 tons, which will approximate the amount sent directly from the mines to interior points. The falling of Bellingham Bay is due to the formidable strike which took place at that mine during the past summer, and to the fire at the mine which subsequently occurred, and which is believed to have been the work of incendiarism:

KIND.	1861. Tons.	1862. Tons.	1863. Tons.	1864. Tons.	1865. Tons.	1866. Tons.
Anthracite	26,060	36,685	38,669	41,680	22,585	12,124
Cumberland	2,975	4,970	5,670	7,275	4,230	10,415
Sydney	23,370	12,590	16,890	21,160	19,260	53,700
Vancouver Island	6,475	8,870	5,745	12,785	18,180	10,800
English	23,565	16,055	14,660	18,330	11,510	7,400
Chili	12,405	5,110	1,790	2,325	3,596	1,480
Bellingham Bay	10,055	10,050	7,750	11,845	13,700	11,320
Coos Bay	4,550	2,815	1,185	1,200	....	2,120
Mt. Diablo	6,620	23,400	45,200	50,700	59,600	80,000

The notable features of the above table are the gradual decline in imports of Anthracite—English and Chili—the steady increase of domestic coals, and the unprecedented increase during the past year of Sydney. This, however, it is well understood, is to a great extent attributable to the Spanish blockade of Chili, and the condition of the flour and grain market in Australia. But what is more remarkable, perhaps, is the increased popularity of our domestic coals as compared with the imported article. It will be remembered that a few years since Anthracite took the lead of the market, and controlled to a great exient the prices of all other coals. But since the great collapse of the market in the spring of 1864 it has never reached a price which would cover cost and charges, and for the greater portion of the time has sold at a ruinous sacrifice. As a commercial article it no longer has any influence upon the market, being now almost exclusively imported by our steamship companies. The same remarks are to some extent applicable to Sydney. The price of this coal for the past year has been unprecedently low, and had such prices ruled here a few years since it would have been impossible to have sold our domestic coal at any price. But in the face of the heavy importations of Sydney and its extreme low price, it will be seen that our domestic coals have not only also greatly increased, but have maintained full prices during the whole year. As already observed, it is well understood that the unusual importations of Australian coal for the past year were due to the Spanish blockade of Chili and the condition of the flour and grain market in Sydney. It is believed, however, that the prices at which this coal has ruled here have been very unsatisfactory, and as the indications are from recent quotations that they have rather overdone the grain business, and great demand existing for tonnage here to be sent to other quarters, it seem highly probable that the present year will show a decided falling off in our importations of this coal. Indeed, if the late prices have been unsatisfactory, we do not perceive how this coal can continue to come here, except in limited quantities as ballast for vessels seeking grain or flour, for it is well known that our domestic mines are better prepared now than ever before to compete successfully with imported coals. Heretofore our supplies from these sources were rendered somewhat uncertain during the winter months, in consequence of the impassable condition of the roads. But during the past year two railroads have been completed from the mines to the point of embarkation, (five miles) on the San Joaquin, and are now in complete running condition. A company of Boston capitalists, in connection with Messrs. Stevens, Baker & Co., of this city, have built one road, and a number of leading capitalists, who during the past year bought out the old Bellingham Bay company, of Washington Territory, and the Black Diamond and Manhattan Coal companies, of Mt. Diablo have completed another road, and also built a tug and a number of substantial barges for transporting the coal to this city. Important improvements have also been made at the mines, and they are now capable of fully supplying any present or future demand of our market. These important improvements and facilities not only render us independent for the future of imported coals, (except for certain limited purposes) but enable these companies to place their coals in the market much cheaper than they heretofore could do. Some of our principal consumers have already acted upon these facts, and have failed to lay in their usual large supplies of Sydney for the winter. We understand also there is a strong probability that the various companies of Mt. Diablo will be induced to unite and make a combination of their coal interests, which will add still more to the efficiency and economy of the management of these enterprises. In this connection we may also observe that the company now owning the Black Diamond and Manhattan mines contemplate making improvements during the coming winter at Bellingham Bay, and we may hereafter expect an increased supply of this favorite domestic coal. They have also secured, it is understood, from the Colonial Government of British Columbia, mining rights to a new and very extensive coal field on Vancouver Island. This latter is a very superior gas coal, and will answer, it is said, for a first-class ocean steamship coal. With these general observations upon the present condition and future prospects of this important trade, we submit the following tabular statement, showing our total consumption for the past six years, and the proportion of domestic coal used:

Year.	Total consumption	Domestic Coal.	Annual increase of consumption.	Annual increase of domestic.
1861	115,000	21,300		
1862	122,000	36,300	6 per cent.	28⅛ per cent.
1863	137,000	52,150	12½ per cent.	38 " "
1864	165,000	64,700	20½ per cent.	30½ " "
1865	155,000	73,250	6 per ct. decline	47½ " "
1866	190,000	93,450	22½ per cent.	49 " "
Average increase per annum for five years			15 per cent.	68 " "

Pennsylvania.

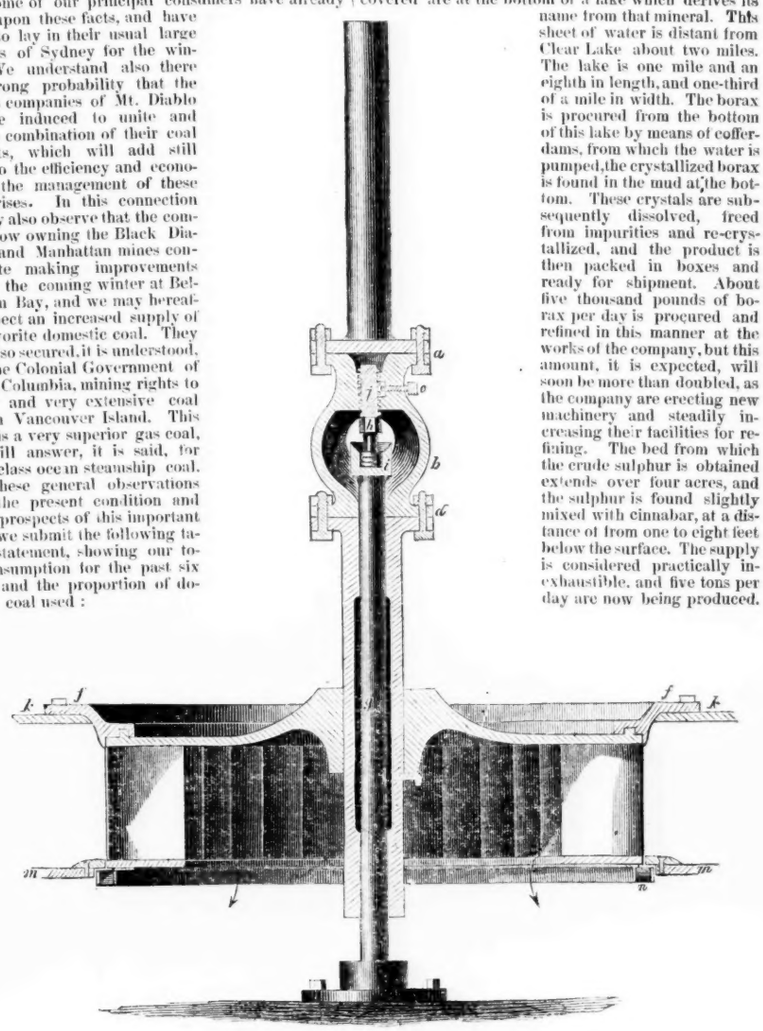
The Hazleton *Sentinel*, Jan. 31st, says: The collieries in the vicinity are still idle. At Jeansville and Yorktown work was commenced last week, but the miners were visited by large bodies of men from other places, and told that they must not attempt to go in the mines again. We are informed that the crowd acted very disorderly, breaking in doors, smashing windows, &c. We are also credibly informed that a man had his ears cut off at Tamanend, near Summit Station, a few weeks ago, for going to work contrary to the wishes of the strikers.....The Pottsville *Standard*, Feb. 2d, says that several of the largest collieries in Luzerne county have recently resumed work.

A New Light.

Professor Carlevaris, of Genoa, has invented a new light. It is an oxy-hydro-magnesian flame, and is obtained by placing in the flame of a mixture of hydrogen, or coal gas, with air or oxygen, spongy magnesia, a substance of very small cost. The flame is white, rich in actinic force, fixed, and developing less heat than other lights. The expense is very trifling, a light equal to four wax candles, only costing two-tenths of a penny per hour.

California Sulphur and Borax.

A San Francisco exchange says: There seems to be a misunderstanding as to the locality from whence the supplies of sulphur and borax now reaching this city regularly from Lake county are obtained. An exchange says that the only deposits of borax thus far discovered are at the bottom of a lake which derives its name from that mineral. This sheet of water is distant from Clear Lake about two miles. The lake is one mile and an eighth in length, and one-third of a mile in width. The borax is procured from the bottom of this lake by means of cofferdams, from which the water is pumped, the crystallized borax is found in the mud at the bottom. These crystals are subsequently dissolved, freed from impurities and re-crystallized, and the product is then packed in boxes and ready for shipment. About five thousand pounds of borax per day is procured and refined in this manner at the works of the company, but this amount, it is expected, will soon be more than doubled, as the company are erecting new machinery and steadily increasing their facilities for refining. The bed from which the crude sulphur is obtained extends over four acres, and the sulphur is found slightly mixed with cinnabar, at a distance of from one to eight feet below the surface. The supply is considered practically inexhaustible, and five tons per day are now being produced.



WARREN'S TURBINE WATER WHEEL.—For Full Description of the above see First page

AMERICAN

Journal of Mining.

[ILLUSTRATED.]

GEORGE FRANCIS DAWSON,

EDITOR

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ILLUSTRATED MACHINERY.—Warren's Turbine Water Wheel.

SCIENTIFIC MEETINGS.

MINING SUMMARY.—News from Nevada, California, Oregon, Idaho, Washington, Pennsylvania, Michigan, Missouri.

MISCELLANEOUS—Russian Iron—The Pitch Lake of Trinidad—Amalgamation of Silver Ore—Mineral Products of Spain—Noxious Vapors from Metal Works—A New Light—California Sulphur and Borax.

MINING COMPANY MEETINGS—DIVIDENDS.

PATENT CLAIMS.—Important to Mill Men, Miners, Metallurgists, Oil Men, etc.

TABULAR MATTER.—Gold, Copper, Lead and Silver Mining Companies; Names, No. of Shares, Capital Stock, Situation of Mine, Name of Secretary and Place of Business.

MARKET REVIEW—Mining and Petroleum Stocks, Finances, Stocks, Metals, etc.

THE COAL TRADE.—Quotations, Shipments, Freights, Cargo Rates, Weekly Coal Trade Circular.

SLATE TRADE REPORTS.

FOREIGN MARKET REVIEW—Metals, etc.

NEVADA STOCKS.—Latest advices by Telegraph.

NEW YORK METAL MARKET.

SPECIAL SCIENTIFIC BREVITIES.

MINERAL AND OTHER OX-DITS. ALL SORTS.

MINING FACTS—NOT FANCIES.

Several months ago, in view of the diarrhœa of "marvelously rich discoveries," with which some of our contemporaries seemed to be afflicted, and the extravagances of language to which some of them seemed to be addicted, we ventured to suggest that instead of such flaming announcements and empty boasts, capitalists grown wise from experience, desire to know "how much the rock will average by working test, in quantity?" the mine?—how much it costs to get the rock out of the rock?—what average quantity of rock can be taken daily out of the vein?—how long will said averages of yield, cost, etc., last?" These we held, and still believe, to be the true tests of the value of a mine, and the mine-owner seeking the co-operation of Eastern capital for the development of his property, should be prepared to answer such questions. If the property, instead of being a *mine*, is simply an *unopened vein*, the croppings of which assay promisingly, surely the discoverer should be able to get enough money from local capitalists to enable him to *prove* the vein, by sinking on it and securing ten or twenty tons to be reduced at the nearest mill, thus furnishing a *working test*. Frequently the owners of such untested veins, armed with certificates of assay—which may or may not have been taken from the outcrop of such veins—and certificates of character, come on to New York and, by the aid of unscrupulous brokers or "middle men," get up companies with immense paper capitals, open flashy offices, and manage, by dint of deceptively-written prospectuses, and any number of verbal lies and evasions, to get hold of the cash that "burns in the pockets" of many simple-minded, unsuspecting people, who, because they are told that this lode "is near the Great Comstock," or that one is "near the famous Allison Ranch mine," imagine, poor dupes, that they have 'a dead-sure thing." Now, we never have said anything to discourage "poor, but bold and persevering, prospectors." On the contrary we ascribe to them all the honor of, and wish that we had the power always to secure to them, a fair share of the legitimate profits in, their frequently wonderful discoveries. But we do say to them: before you endeavor to raise capital in the Atlantic States for the working of your property, first *prove your veins* as well as you can, and don't spend the money, that would, to a certain extent, enable you to do this, in paying your expenses hither. Otherwise you will either have to descend to low dirty tricks and misrepresentations, or else find yourselves shortly without a dollar in your pockets, and far away from where you wish to be. And we say to the newspapers which encourage these poor fellows to prematurely come here on a wild-goose-chase for capital: you do wrong—not wilfully, perhaps—but still, wrong. And although some of you may properly consider that it is your "portion of duty to make statements of what you *know*," yet we trust you will confine yourselves as nearly as practicable to what you *do* actually know; and if you do not know enough, then faithfully endeavor, with the JOURNAL OF MINING, to learn more. We have always endeavored to secure and spread before the public a more accurate knowledge of American mines and the manner of working them, because by doing so we hope to effect a change from merely speculative to legitimate mining; and if sometimes we have seemed to find fault with any Far-Western contemporary it was owing entirely to our zeal in the cause. We are quite willing, when we know nothing to the contrary, to credit *our contemporaries' own* statements as to wonderful mineral discoveries, but we would much sooner that they (who are right on the ground) should give us the more solid facts of yield and cost of the mines in actual operation. We are glad to observe that an improvement in this respect is already manifested by some of them, and we are thus enabled to place before our readers, in our Mining Summary of this issue, some very interesting facts and figures, which prove that gold and silver mining can be conducted with perhaps larger profits than any other line of legitimate business.

THE N. Y. HERALD'S ESTIMATE OF METALLIC YIELD—MORE BAD FIGURING.

Last week we found it necessary to expose the plagiarisms and blunders of Ross Browne's report on the Far-Western mines; this week, it becomes our duty to point out some grave mistakes fathered by the New York *Herald*—a paper that we have genered to be very careful and correct in erally consi. The *Herald* states that the entire such matters. e *gold* in the Mint and branches deposits of domes. ing States and Territories from the several mi. al years 1864, 1865 and named, for the three fis. and 1866 were as follows:

	1864.	1865.	1866.
California	$15,071,422	$13,[illegible]72,236	$14,598,191
Nevada	1,918	6,925	50,105
Oregon	2,162,147	1,125,673	914,436
Idaho	2,306,568	4,971,454	3,391,997
Colorado	2,436,684	1,622,240	1,018,471
Montana	....	1,767,381	5,505,074
Washington	7,747	22,460	2,232
Arizona	3,889	21,692	30,430
New Mexico	....	3,924	3,155
Total	21,689,079	22,873,963	25,514,094

and then declares that "Three times the amount of these respective deposits will give approximately the total *gold yield* of the different mineral districts of our country." That then—without taking notice of the gold yields of Georgia, North Carolina, Virginia and other "mineral districts of our country" which seem to be totally ignored—would make the total *gold yield* of this country during last year, $76,542,282. Very well. But reverting to the commencement of the *Herald's* articles (see Mining Summary in this issue of the JOURNAL OF MINING) we learn from the same authority that "the total product of *gold and silver* from the mines of the Pacific coast, as estimated from mint statistics and other reliable data, may be stated as follows":

1861	$53,000,000	1864	$65,000,000
1862	58,000,000	1865	68,500,000
1863	61,000,000	1866	76,000,000

Or in other words, the *Herald* estimates the last year's production of gold and silver at $76,000,000 in one portion of its article, and in another portion of it declares that the product of gold alone for that year was $76,542,282! What becomes then of the $18,000,000 in silver that the *Herald says* is produced in Nevada, and which, added to its gold estimate, would make the total of gold and silver $94,542,282? What of the silver product of Idaho—a single district of which (Owyhee) is estimated by the same authority to have produced in 1866, from its "auro-argentiferous" ores, $2,000,000? What of the silver products of Arizona, New Mexico, and Michigan? What of the gold products of Southern, and other States and Territories, not named in the list? The fact of the matter is, that one of the *Herald's* bases of calculation is wrong. Had it calculated that about two and a half instead of three times the total amount of mint gold deposits would approximate to the total yield, it would have been much nearer the mark, according to our judgment, which places the total yield for 1866 at $82,000,000 in round numbers—although it is thought by Mr. Hollister of the Colorada *Mining Journal*, that the yield of the Territory during the past year did not exceed $5,000,000, instead of the $9,000,000 which (we confess, with some misgivings,) we estimated it at.

American Iron and Steel Product of the Past Year.

From the Annual Report of the Secretary of the American Iron and Steel Association we learn that during the fiscal year ending June 30th, 1866, there were made in the United States 939,956 tons of pig iron; steel manufactured, 14,923 tons; and 389,764 tons of rails. The amount of pig iron made, was in:

Pennsylvania	397,584	Kentucky	9,723
Ohio	118,498	Vermont	3,743
New York	93,565	Wisconsin	2,380
New Jersey	29,768	Tennessee	1,177
Maryland	27,080	West Virginia	757
Michigan	15,823	Virginia	474
Connecticut	14,208		
Missouri	14,046	Total	939,956
Massachusetts	11,126		

The value of importations of iron and its manufactures during the fiscal year was $11,279,825, showing an increase of $2,595,590 over the amount of the previous year. The Government received $13,728,133.36 as internal revenue from the manufacture of iron and steel—an increase of $4,509,424.73—Pennsylvania paying 33 per cent., New York 17, Massachusetts 13, Ohio 8, Connecticut 7, New Jersey 6, Illinois 2½, Rhode Island 2, and other States ranging from 1½ downwards. Under the new act the amount of revenue will be greatly reduced.

MEETINGS.

N. Y. Gold M. Co., of Col., at 78 Broadway, Feb. 19, 12 M.: Clarion Coal & Oil Co. at 168 Broadway, Feb. 21, between 1 and 2 P.M.; Grand Union Oil Co., of 119 Broadway, annual, held at Meadville, Pa.; N.Y. & Clear Creek Gold Co. at 20 Nassau street, Feb. 20, 2 P.M.; Saginaw Valley Land, Salt & Mineral Co. at 10 Wall street, Feb. 15, 2 P.M.; Granada G. M. Co. at 25 Nassau St., Feb. 12; Quicksilver M. Co. at 205½ Walnut street, Philadelphia, Feb. 27; Bliven Pet. Co. at 245 Pearl street, Feb. 14; Lafayette Oil, Coal & Salt Assoc'n at 3 Pine street, Feb. 12; Equitable Pet. & M. Co. at 244 Water street, Feb. 11.

DIVIDENDS.

N. Y. & Allegheny Oil Co., quarterly, 10 per cent.; Delaware & Hudson Canal Co., 8 per cent., now due; Pittsburg & Boston M. Co., $3 per share; Savage S. M. Co., of Nevada $100 per share; Empire Mill & Mining Co., of Nevada, $15 per share.

NEW PUBLICATIONS.

METALLURGICAL ASSAYING (METALLURGISCHE PROBIRKUNST), for the use of Teachers and Private Students. By Bruno Kerl, Professor in the Royal Prussian School of Mines at Clausthal. Leipzig, 1866.

Although this work, the title of which we have translated into English, is as yet not available to those who have no knowledge of the German tongue, its great merit has induced us to present our readers with a statement concerning it, that those who are capable of using it may be made aware of its value, and others may at least take notice how thoroughly a true master of applied science understands what he would teach, and with what logical strength, clearness and harmony he sets it forth. About one-fourth of the 500 pages included in this volume is devoted to the "General Part," or a discussion of the principles underlying the metallurgical processes of the laboratory, and the rules applicable to assays of all kinds. Under this head are considered: The manipulations of the assays, such as sampling, weighing, mixing, charging, igniting, calcining, roasting and melting, and the usual chemical tests in the wet way. A second subdivision treats of the different kinds of furnaces used by the assayer, with descriptions of the component parts, and directions concerning the arrangement of the heating and drying apparatus. He then takes up the vessels used in assaying, such as retorts, tubes, crucibles, cupels, &c., &c., with important directions as to material and manufacture. The next fourteen pages are occupied by a complete and valuable description of the tools and apparatus of an assay office. The balance and weights are especially considered, and with them all the other instruments used in making assays. The "General Part" closes with the re-agents, which are taken up one by one, and carefully described. The "Special Part" occupies 320 pages, and gives complete and reliable directions for assaying ores and alloys of Lead, Copper, Nickel, Silver, Gold, Platinum, Iron, Cobalt, Zinc, Tin, Bismuth, Quicksilver, Antimony, Arsenic, Sulphur, Manganese, Chromium and Uranium. Upon these follow tables for determining the heating capacities and percents of ashes of different kinds of fuel, and directions of alum-tests. In an appendix are tables of Equivalents, Specific Weights, Melting Points of Metals and Alloys, &c., &c. Eight large lithographic plates contribute to the illustration of the work. A former edition of this work, by Kerl and Bodeman, published about ten years ago, was translated and revised by Goodyear. The present edition has been greatly extended and improved, and it is to be hoped that some capable chemist or metallurgist will apply himself to the translation of this very valuable and much-needed work.

REPORT UPON THE MINERAL RESOURCES OF THE STATES AND TERRITORIES WEST OF THE ROCKY MOUNTAINS.

To the kindness of U. S. Senator Conness, of California, we are indebted for a printed copy (312 pages) of the report of J. Ross Browne, Special Commissioner for the collection of mining statistics. We have already published a synopsis of this report, and devoted considerable space to a cursory review thereof. We shall probably recur to the subject again, and meantime will simply say that the volume can claim the merit of containing an immense amount of information, drawn from a variety of sources, that otherwise would not be easy to secure in so compact a shape.

THE GOLD AND SILVER FIELDS OF OREGON AND IDAHO. By E. M. Barnum.

A pamphlet bearing the above title has reached us, and we perceive that the contents are precisely the same as those of a recent article in the *Herald*, which is quoted in this week's Mining Summary of the JOURNAL OF MINING. It contains some valuable matter, much of which has appeared at different times in this paper, but the author has seriously blundered, by his own showing, in some of his estimates, to which we allude more particularly in an editorial.

THE TELEGRAPH CABLE.

This is the title of a pamphlet lying upon our desk, being an historical view of the art of Electro-magnetic Telegraphing, in connection with the Telegraph Cable and its insulation by gutta percha, comprised in an argument addressed to the United States Senate Committee on Patents, etc., by George Griscom, Esq., in answer to arguments filed on behalf of G. B. Simpson's claims. It is an able production.

Scientific Meetings.

PROF. AGASSIZ ON THE GEOLOGICAL FORMATION OF THE RIVER AMAZON.

On last Monday evening, in the large lecture hall of the Cooper Institute, Prof. Agassiz delivered the first of a series of six lectures on the Geological Formation of the River Amazon, of which the following is a summary:

This year will witness an event of no small importance to commerce and civilization. It has pleased the Emperor of Brazil to decree that the Valley of the Amazon shall be open to the commerce of the world on September 7th, a great day in Brazil, as it is their Fourth of July. This fact suggests some lectures on that Valley, that our community may become acquainted with its physical features and capabilities, and that those who care, may be prepared to avail themselves of the advantages of that great inland sea. Like all other irregularities of the earth, the Valley of the Amazon owes its present appearance to a succession of events occurring at long intervals—to those geological periods which have made our earth what it is now. "In order to fully understand the facts I have been able to collect," said the Professor, "it is requisite to recall a few of those principles necessary for the due appreciation of the geological constitution of any country. I wish I could dispense with this preface, but, unfortunately, geology is not part of our elementary education—it is not always a part of an advanced education—yet as a science it has made such progress that it is a fundamental principle and should be understood by all, just as all understand certain elementary facts pertaining to every branch of human knowledge."

He then explained how no part of the globe owes its present appearance to any sudden change. It has been the result of time. There is no inequality of the earth's surface that does not owe its outline to disintegration, and the form of the seashore has been traced out by the waves. There is no tract of land that does not owe its peculiar constitution to geological agencies. This world was once a globe of fire, without an atmosphere, and uncovered by water. Later a crust formed, and still later this crust cooled so that it condensed the vapors that surrounded it. The action of the moon created tides, and their alternate ebb and flow had their own effect in determining the shape of the beds. By the agency of fire and water the earth assumed a form which rendered it habitable, first by one kind of animals and then by another, according as it became gradually cool. The configuration of the earth was changed, first an island, then a continent appearing above the sea, then gradual modifications of the surface, until it was habitable by plants and animals as at present. Some portions of the earth's surface are older than others. Thus in South America, the table lands of Guiana, are older than those of Brazil, while the range of the Andes is younger. Guiana rose first, an island in the middle of the sea, then Brazil sprung up, and lastly the Andes. In the same way the North American continent was formed, the great Canadian table land north of the Capes, extending from Labrador to the Rocky Mountains, was first formed, then the Alleghanian range, and lastly the Rocky Mountains, the oldest mountain ranges being the smallest in size. The mountain ranges and the serried form of the earth are due to upheavals and contractions. The cooling of the earth produced contractions, and consequently a falling in. Geologists are able to tell from an examination of different strata which is the oldest, with quite as much certainty as an archæologist can determine the age of a coin or of a marble. All deposits are made horizontally, and can only be changed by some effort of nature. Thus we find a regular series of rocks, azoic, silurian, devonian, carboniferous, permian, triassic, jurassic, cretaceous, eocene, meiocene, pleiocene, and the deposits which are forming at present. It is known that in cretaceous strata, for instance, certain fossils are found, and wherever these are found it is inferred that the strata are of the same age. By such means are the synchronism of strata determined. Following this principle we can say that Guiana is older than Brazil.

Prof. Agassiz then alluded to the constant change going on in the valleys of the Amazon, Orinoco and Paraguay. He stated also that the peculiar form of this continent leads us to believe that formerly it was covered with ice. One of the most remarkable phenomena connected with the valley of the Amazon is the immense alluvial deposit which fills the whole bottom of the basin from the foot of the Andes to the Atlantic, and which has been washed from the side rocks. This will form the subject of the next lecture on Monday evening.

Correspondence.

[To insure insertion of Correspondence in our columns the full name and address of the writer must be given.]

Slate—Geologically and Otherwise Considered.

EDITOR JOURNAL OF MINING:

SIR—By an examination of your spirited JOURNAL OF MINING I see that you are giving a statistical and geological report upon the slate trade in the United States, which will be of the greatest utility to the American people, who have but a very limited knowledge on this interesting and important subject. As this report intends to deal only in generalities, I will, with your permission, follow in a series of articles, picking up the fragments and entering into such details of the manufacture of slate into the various articles to which it is specially adapted, as well as the supply and demand, the state of the market and the ruling prices (see monthly slate report, page 315), together with such observations as an experience of twenty years in the business may offer. The "clay slate," which is the only slate suitable for manufacturing and commercial purposes, in this connection, will claim our exclusive attention. Hence we shall offer a few geological reflections upon its formation, which was probably the result of a purely mechanical operation. During the eocene existence of our earth, we learn that it was without "form or comeliness." Hence it is supposed the elements were in a conglomerate state, while the particles of matter were constantly impinging by the ebb and flow of the great thermal ocean by which the globe was enveloped; and with this intense heat, in connection with chemical and electrical action operating on the gneiss, whose ingredients were held in solution during a succession of ages, was precipitated in laminated layers, thus forming the immense slate beds, the use and value of which is just beginning to be known and appreciated in the United States. Having geologically considered the formation of slate, we shall point out its inferior as well as superior qualities, so that those who desire to use slate may know how to select the color and quality adapted to their wants. Slate suitable for "school slates," as well as that which requires scouring, planing, rubbing and carving, for commercial purposes, should be soft and of a uniform texture, free from lime, grit and flints; while the harder qualities, that is of the clay slate, are better suited to the manufacture of roofing slate. Although the slate formations in this country are very extensive, yet but comparatively small quantities have been found sufficiently pure to rank as strictly first quality. For slate varies exceedingly in its chemical constitution, as might very naturally be expected, since it is a compound mixture consisting of very minute particles of quartz, feldspar and mica, to which are occasionally added scales of talc and portions of carbonaceous matter, with oxydes, sulphurets and pyrites, on which ever-varying preponderance of these ingredients the color and quality of slate entirely depend. The slate that contains the greatest proportion of silex and alumina to the other incident constituents will prove the best, not only as to quality but permanency of color, and may be found near Hydeville, Vermont, as well as in one or more of the Pennsylvania quarries. The color of the Pennsylvania slates, which is a dark blue, is owing to the presence of carbon. A light purple is the result of a combination of iron and copper. A tincture of lime and iron gives a grayish brown, and magnesia a green; while the incorporation of copper without the presence of iron or lime gives an unfading dark purple. Hence roofing slate containing these fading impurities will soon be detected by the slates assuming such a great discordance of colors as to utterly destroy that beauty and harmony which can only be secured by using "unfading slates." SILEX.

Mines of Central America—Promise of Speedy Development.

EDITOR JOURNAL OF MINING:

Sir—I send you a note of an association in England for acquiring mining property in Central America, condensing, for this purpose, a letter from the agent, Berthold Seeman, whom I believe to be the same with the well-known voyager, and the author of the voyage of H. M. S. Herald, 1853. His printed letter dates "R. M. S. Atrato, Southampton, July 17, 1866," and he informs "the Central American Association Limited," that he has just returned from the visit made, under their instructions, to the New Segovia and Matagalpa mines, and the Chontales mines in Nicaragua; that he has effected provisional contracts for mining and other properties of high value there; that he visited, in company with a Captain Holman, every known mine of New Segovia and Matagalpa, entered into provisional contract for the famous silver mine of Limon, and the Ocalca gold mines of Madagalpa; that he visited, also, the Pillar gold mines near Santa Rosa, belonging to two American citizens, and worked by steam machinery. In the Chontales district, bordering on the northwest of Lake Nicaragua, he found that 120 gold mines are officially registered by the Nicara-

guan Government, in their gazette; he purchased the Javali, "the gem of these, the richest as yet discovered in Central America." He states that he had the offer of extensive cotton and coffee estates in New Segovia, and of other estates of value in Nicaragua. On the return of the agent to the Isthmus, he made a provisional contract for an estate on the Bayano River, the prospect of working which was so promising, that a number of influential citizens who had accompanied him on a steamer of 120 tons, loaned by the Pacific Railroad Company to go up that river, were desirous, from their own observation, to have shares in any company to be formed to work the estate, in which desire the leading merchants and foreign consuls of Panama shared, appending their names to an application for that end. The agent further states that the tide of emigration has now fairly set in to Nicaragua, and that the people are very desirous to see the new railroad projected by Capt. Bedford Pim, R. N., speedily constructed. This railroad, engineers upon which are now at work in Nicaragua, proposes eventually to be a continuous iron road from Monkey Point, on Gorgon or Pim's Bay, thirty miles north of Greytown, to Realejo, a fine harbor on the Pacific, a distance, in all, of about 260 miles, but having good harbors, as termini, and saving all the delays of transshipment from car to lake and lake to cars, and, at the end of the route, by transfer into small barges out to steamers in the bay. I send you the preceding, simply as a note of what purports to be doing in this region, neither endorsing nor rebutting any statement. Doubtless the day has come for developments of the country naturally so blessed. N.

What Hollister* Thinks of Ross Browne's Report.

SPRINGFIELD, Mass., Feb. 5, 1867.

EDITOR JOURNAL OF MINING:

Sir—I am decidedly pleased with your strictures on J. Ross Browne's report. He not only doesn't tell anything new, he doesn't tell a hundredth part of what has been told a thousand times, nor does he tell what he attempts to in any shape. His ideas of an average must be misty. For instance: The value of quartz in California may vary from $1 to $180 a ton, but they can scarcely average from one to the other. An average is the striking of a balance, and that he doesn't pretend to do in regard to yield, cost of mining or treatment, value, or anything else. Commissioner Edmunds could have made a far better report on the mining resources, condition of mines and mining, and production, than Browne's, and never left his office. There are a thousand men in the West who could. Your estimate of the yield of gold from the different sections, I think, should put Oregon, Idaho and Colorado at least as low as $5,000,000 each for 1866,† which would make the aggregate thirteen millions less than you have estimated it. Browne's estimate is terrifically out of the way. He only does harm to mi-represent things in such a frightful manner. O. J. HOLLISTER.

* Late Editor of the "Mining Journal," Black Hawk, Colorado.

† We consider our correspondent excellent authority in Colorado mining estimates, but not as to either Oregon or Idaho.

Original Papers.

[WRITTEN FOR THE JOURNAL OF MINING.]

THE SILVER MINES OF COLORADO.

By "SENECA."

[CONTINUED FROM PAGE 298.]

In a district of country so extended as that described in a previous communication, it would, of course, be impracticable to apply, in every case, the evidence as to the formation of particular veins, their surroundings and contents; that can only be acquired by personal examination. Though your correspondent has visited many of the prominent lodes in the silver region, there are many others of established reputation and undoubted value, which cannot be described except from written or verbal authority. The first discovery of true silver ore in Colorado occurred in Sept. 1864; the lode then located was called the Belmont, and is situated on the McClellan Mountain, a spur or branch of the Snowy Range. The discovery shaft is near the extreme crest of the mountain, overlooking the "Valley of the Shadow of Death," so called by reason of its sterile and desolate appearance; 3000 feet below, the western base of the mountain is washed by Kelso or Mail creek, a small tributary of South Clear creek. This shaft is only twelve feet deep, and shows a vein of white quartz, interspersed with cubes of galena, and occasional specks of sulphurets of silver, the assayed value of which is about $2,000 per ton. The streak, about five inches wide, comprises all the ore in sight. A second shaft, some 400 feet east, discloses a large vein of ore, the value of which is about $500 per ton. The ore in this shaft presents the same appearance as that at the discovery, with the exception that traces of copper appear, in the form of carbonate. The lode occurs in a syenetic formation, though prophylite and trachyte rock are found in enormous quantities in the great slide which composes the western slope of the mountains. Mica slate occurs, in rare instances, westward and towards the range. The Belmont, deservedly, has a high reputation; it is, unquestionably, a vein of great extent and value, but is almost entirely undeveloped. The owners long since formed a mutual admiration society, of which the lode is a silent member, and the discovery shaft has been the only shrine of their devotion—a species of faith which, however commendable, is not known by its *works*. The Wheeling lode, which is situated near to, and occurs in, the same formation as the Belmont, is, of the two, the stronger lode, and exhibits the best-defined crevice of any true silver lode on the eastern slope of the McClellan Mountain. The lode has been opened in three places, viz.: at the Discovery, and at points 100 and 300 feet west therefrom. The Discovery shaft is about fifteen to twenty feet in depth, and contains three distinct veins of mineral, from four to four and a half feet apart, their width varying from three to eight inches. In the bottom of the shaft they come nearly together, and present the appearance of being about to unite in one strong, well-defined mineral vein. The average assayed value of all the ore exposed is $800 per ton, specimens of ore selected from the larger vein yielding as high as $3,500 per ton. The lode is admirably located for working, it being accessible, by tunnelling, to an immense depth, at several points upon the portion located. Upon the same mountain occur several other lodes of undoubted continuity and value, prominent among which are the Richmond, Savage, Atcalson and Bob Morris. The Richmond is a gigantic vein, traceable by its outcrop, in many places fifteen and twenty feet wide, for a long distance upon the western slope of the mountain. None of these, however, have been personally examined by the writer. There are, in the neighborhood, several lodes containing large amounts of galena ore, of coarse texture, crystallized in large cubes, one of which—the Paymaster—was very unsuccessfully worked, during the summer of 1865, for silver, by the Argentine Exploring and Mining Company, the ores containing, by assay, $13.50 in silver, but yielding 72 per cent. of lead. Opposite McClellan Mountain is a sheer precipitous peak, known as Kelso Mountain, on the eastern slope of which, and running in a direction parallel to the lodes above mentioned is the Baker lode, now in the hands of a Philadelphia company. This lode has been explored on the surface a distance of nearly 3000 feet, and has been developed by a shaft about thirty feet in depth, and a tunnel, length unknown. It contains, in a large and well-defined crevice, some seven feet in width, several varieties of true silver ores, of which sulphurets of silver and argentiferous galena are the most abundant. Chlorides and bromides of silver, coupled with a species of quartz beautifully crystallized, compose the remainder of the vein filling; the walls are well-defined, and the country rock is similar to that about the Belmont. Samples of sulphurets and argentiferous galena from this lode, assayed $782.10; from a quantity of it crushed without dressing, an average sample assayed $333.20. Samples of the chlorides and other accompanying matter yielded $110.60, while the quartz gave a result of $120.10. An average of the entire crevice, assayed by Prof. Brenkner, yielded about $1.05 per ton. Another average taken by the resident agent of the Baker company, from another portion of the mine, yielded about $70 by assay. The intentions of this company in regard to future operations are not known, but it is probable they will proceed immediately to develope their property. There are many other valuable veins of ore in the vicinity of the Baker which come under the category of unexamined lodes. The Sonora Silon mining company, under the management of Mr. George Stille, and engaged in developing the Ayres lode in this neighborhood, and are at the same time solving the problem of working on the Range during the winter, their works being now inaccessible, except on snow-shoes. Coming down the fork of Clear Creek, which takes its rise west of Kelso mountain, we strike into the Griffith district, of which Georgetown is the central point. Very much more work has been done on the mines in this vicinity, and consequently their value and extent is better established. This district will be made the subject of future letters.

[TO BE CONTINUED.]

MARKET REVIEW.

FRIDAY EVENING.

Gold and Silver Stocks.—At the Mining Stock Board to-day, the following were the quotations:

	Offered.	Asked.
Alameda	5 00	5 50
American Flag	1 20	1 30
Atlantic and Pacific	....	3 50
Ayres' Mill and Mining	....	30 00
Bates & Baxter Gold	....	....
Benton Gold	1 05	1 15
Bobtail Gold	....	3 00
Boscobel Silver	2 75	2 85
Bullion Consolidated	....	2 50
Burroughs Gold	....	40
Church Union Gold	....	....
Central Gold	....	35
Crozier Gold	12	14
Columbian G. & S.	....	1 85
Consolidated Colorado	7	10
Consolidated Gregory	12 35	12 45
Corydon	8 00	8 00
Des Moines Gold	2 15	2 20
Downieville Gold	....	12
First National	....	....
Gilpin Gold	....	3 00
Gold Hill	4 75	4 80
Gunnell Gold	1 00	1 05
Gunnell Union	46	48
Grass Valley Gold	1 40	1 50
Hibbard Gold and Copper	1 10	1 15
Holman	....	82
Hope Gold	....	80
Keystone Silver	6	7
Kipp & Buell Gold	50	75
Knickerbocker	....	....
La Crosse Gold	75	85
Liebig	60	80
Liberty Gold	7	....
Lansenderfer	20	30
Mill Creek Gold	8	12
Montana Gold	40	50
Manhattan Gold	....	....
New York	1 24	1 30
Nye Gold	8	10
Ohio and Colorado Gold and Silver	55	60
Pah Ranagat Central Silver	....	3 00
Perry & People's Gold	....	....
People's Gold and Silver of California	....	....
Quartz Hill	4 10	4 20
Rocky Mountain Gold	....	....
Smith & Parmelee Gold	6 75	7 00
Texas Gold	20	30
Vanderburg	....	....
Yellow Jacket	....	50

The following were the sales at the first Board: American Flag 600 shares at $1.30@$1.35; Con'd Gregory 2800 at $1.30@$1.50; Corydon 3600 at $8.60@$8.70; Boscobel Silver 300 at $2.70@$2.75; Des Moines 500 at $2.20; Gold Hill 300 at $4.80; Gunnell 700 at $1.00; Keystone 1,000 at 7c.; Nye Gold 1000 at 9c.; Quartz Hill 800 at $4.05@4.20; Ohio & Col. G. & S. 2000 at 55c.; N. Y. Gold 1500 at $1.24.

At the second Board sales were as follows: American Flag 200 shares at $1.35; Boscobel Silver 200 at $2.75; Crozier 1,000 at 12c.; Con'd Gregory 1200 at $12.50@$12.75; Corydon 5000 at $8.25@$8.50; Des Moines 100 at $2.20; Gunnel Gold 1200 at $1.01; Key Stone Silver 500 at 7c.; La Crosse 100 at 80 c.; Nye Gold 2000 at 8c.; Smith & Parmelee 200 at $6.90.

Coal Stocks.—Wilkesbarre, 42@43; American, b.10, 61.

Copper Stocks—May be quoted as follows:

	OFFERED.	ASKED.
Canada	60	80
Caledonia	....	....
Central	30	40
Charter Oak	1 00	1 10
Davidson	....	....
Franklin	....	....
Evergreen Bluff	....	....
Hilton	1 00	3 00
Huron	....	38 00
Indiana	....	2 25
Isle Royal	12 00	....
Ogima	....	2 50

Foreign Exchange is inactive. Bills at sixty days on London are quoted at 107½@108¼ for commercial; 108⅜@108½ for bankers'; do. at short sight, 109@109¼; Paris, at 60 days, 5.22½@5.17½; do. at short sight, 5.17½@5.15; Antwerp, 5.22½@5.18¾; Swiss, 5.22½@5.18¾; Hamburg, 36@36⅜; Amsterdam, 40¾@41¼; Frankfort, 41@41¼; Bremen, 78½@79; Prussian thalers, 71½@72⅛.

Government Stocks.—The following were the prices to-day:

U. S. 6s, 1861, coupons	103⅜
U. S. 5-20 coupons, 1862	103⅜
" " " 1864	106½
" " " 1865	107⅜
" " " new	105
U. S. 10-40 coupons	100½
U. S. 7-30, August	105¼
U. S. 7-30, June	105¼
U. S. 7-30, July	105¼

Lead Stocks.—Five hundred shares of Walkill sold at 80@82c.; Tudor quoted at $3 35@3 40.

Miscellaneous Stocks.—Long Island Peat, $3 60; Rutland Marble held at $20.

Petroleum Stocks.—The following were the quotations to-day:

	Offered.	Asked.
Bonnehoff Run	$3 05	$3 15
Bergen Oil & Coal	10	30
Buchanan Farm	20	22
Central	1 11	1 20
Clinton Oil	1 25	1 50
Excelsior	10	18
Manhattan	10	20

New York and Alleghany	....	5 00
Pit Hole Creek	65	75
Rynd Farm	..	20
Shade River	..	5
United Pet. Farms	10	15
United States	4 50	5 00
Union	75	....

At the first board 600 shares of United States sold at $4 10@4 50; Rathbone Oil Tract, 1,000 at 63@65c.

Copper.—Trade is firm, without much inclination to do business. Stocks are ample. Baltimore is quoted at 27½c.; Superior, 27½@28c.

Iron.—Undecided. Quotations of this week exhibit scarcely any change from those of our last issue. Wm. Outhout & Co., in Cliff street, report retail prices as follows: Swedish Iron, $162½@172½; common, $102½@107½; refined, $112½@117½; band, $142½; rods, 3-16 to ⅝, $117½@172½; scroll, 5-8 to 7-8, $142@190; horseshoe, $137½@145; hoop, 5-8 to 2, $147½@210; nail rod, 9½@10½c.; ovals, ½ to 1½, $137½@147½.

Steel.—Best Cast, 23; extra, 24½; round machinery, cast, 15.

Tin.—Has advanced since last week ½ cent per pound. Straits, 32@33; Banca, 34.

Lead.—With any increase of business this branch of the market must improve. American, $10 25 per 100 lbs.

Spelter.—Has, as well as tin increased ½ per cent. per pound. There is an ample stock on hand, but there have been no sales of importance; 9¼@9½ last quotation.

Zinc.—Musselman sells at 12@13; American, 12@13.

Quicksilver.—In flasks, 90c.; in lots, 85c.

Petroleum.—Is firm. Sales 200 bbls. at 19@19½c. for Crude, and 30c. for Refined, in bond.

THE SLATE TRADE.

NEW YORK, Feb. 8, 1867.

Excepted a limited local trade and the usual bustle of getting ready for spring—augmented this year by the bright prospects ahead—no other movements are noticeable in the slate marts of this city. A few producers—the *avant courriers* of the trade—are already in town. The whole army may be expected soon.

Prices continue unchanged, and we reprint the statements made last week that until the coming of spring, they will probably remain so, at which time they will rule much lower than at present. There is but little slate in this market, and producers, when they come here to make their contracts for the ensuing season, will find in it a less supply than they anticipated. Quotations may be given as follows:

Roofing Slate.

Vermont purple,	1st	quality, per *square	.....	$11 50@12 50
" "	2d	" "	.....	10 50@11 50
" green,	1st	" "	.....	12 00@13 50
" "	2d	" "	.....	11 00@12 00
" red,	1st	" "	.....	13 00@14 00
" "	2d	" "	.....	12 00@13 00
Pa. bl'k & d'k blue,	1st	"	.....	11 00@12 00
" "	2d	"	.....	10 00@11 00

PRICES DELIVERED.

				PER SQUARE.
CHICAGO.—Vermont purple and green,		1st qual.	....	$14 50@15 50
" " "		2d "	....	13 50@14 50
" " red		1st "	....	15 50@16 50
" " "		2d "	....	14 50@15 50
Penn. black		1st "	....	16 00@17 00
" "		2d "	....	15 00@16 00

BUFFALO.—$2 or $3 lower than Chicago.
CLEVELAND.—$1 higher than Buffalo.
CINCINNATI.—50 cents higher than Cleveland.
NEW ORLEANS.—$19@20 per square.
CHARLESTON, S. C.—$15@16 per square.

* The term "square" represents 100 superficial feet.

Monthly Report—January.

BY "SILEX."

Preparations are being made for a larger production of Slate, for all purposes, this year than heretofore, yet we feel confident that the demand will be fully equal to the supply, while there are substantial reasons to induce large investments in good Slate property, as it will be sure to give a profitable return.

Roofing.

Quantity used in the U. S. per annum about ..... 250,000 squares.
" Manuf'd " " " " ..... 200,000 "
" Of American Slates now in market ..... 15,000 "

Ruling price at the Quarries during January, $7 50 to $8 per square. January productions small, sales light and weak, which may be expected at this season of the year.

School.

Consumption in the U. S. and Canadas per an. about 30,000 cases.
Manufactured " " " 18,000 "
Number of cases on hand ..... 3,000 "
Manufactured in January ..... 800 "
Sales in January ..... 500 "

Supply fully equal to the demand, at fixed list prices—regulated by percentum discounts, which will net about $15 per case.

Billiard Beds.

Quantity used in the U. S. per annum about 3,000 set. Price of finished beds ready for the table, $55 to $60 per set. Demand moderate, with tendency to lower prices.

Mantel Stock.

Quantity manufactured and used in the U. S. per annum about 500,000 square feet. Price per square foot 35 to 40 cents. Sawed, planed and rubbed, and cut to pattern. Demand and supply constantly increasing.

Black Boards.

Demand increasing, which is promptly supplied at fair prices, at 50 to 75 cents per square foot.

Cemetery Slabs.

Fair demand, at low prices, which is mostly supplied at Southern ports from Europe. Price, from 22 to 25 cts. per sq. foot.

Tiling.

Supply in excess of the demand, but is growing in public favor. Slate Tile will wear longer, and is less liable to slipperiness than any article in use. Price per square foot, finished ready for laying, 40 to 60 cts.

Bases for Lamps, &c.

These Bases are enameled and finished in jet. The demand and supply is rapidly increasing, with prices remunerative to the manufacturer and satisfactory to the buyer.

Washtubs and Sinks

Are coming into use, with a supply equal to the demand. Slate is admirably adapted to these purposes, and will soon become an important branch of the Slate business.

Refrigerators.

Slate for refrigerators and meat boxes for hotels and restaurants, is coming into use with great favor, and will soon require considerable quantities of Slate to meet the demands of the community.

THE BOSTON SLATE MARKET.

REPORTED BY A. WILBUR & CO., 112 TREMONT STREET.

Roofing Slate.

BOSTON, Feb. 7, 1867.

	PR SQUARE.
Welsh, 1st quality	$12 50@13 00
Penn., 1st do.	10 00@11 50
Purple, 1st do.	9 50@11 00
Green, 1st do.	9 50@11 00

THE COAL TRADE.

FRIDAY EVENING, Feb. 8, 1867.

During the past week the warm weather has materially affected the retail trade, and has caused a like depression at wholesale. There are some calls for Foreign, but the supply is small. Dealers are anxiously waiting the sale of Pittston Coal, which is to take place on Wednesday next, Feb. 13. Fair prices will no doubt be obtained. It is believed that the prices there obtained will regulate certain tolls, and therefore the sale is looked upon with much interest. We are patiently waiting for the scale of tolls for 1867 of the various transporting companies. We trust they will denote such suitable reduction in rates as will induce a reasonable traffic, and make a remunerative business for all engaged during the coming season. At the present rates Schuylkill county is totally denied a market here, which is disastrous to the operators and miners, and a loss to the carrying companies.

Lehigh and Mahanoy Coal Trade,

For week ending February 2, 1867.

NAMES OF SHIPPERS.	WEEK.	TOTAL.
Trenton Coal Co.	16 08	264 00
Mount Etna	.....	43 04
Mahanoy Coal Co.	.....	.....
Delano Colliery	1,614 07	7,257 01
Glendon Coal Co.	.....	151 14
Rathbun, Stearns & Co.	883 09	2,558 01
E. S. Silliman	.....	13,554 01
McNeal Coal & Iron Co.	1886 02	3,150 08
Knickerbocker Coal Co.	1772 12	4,610 05
Thomas Coal Co.	545 05	1,779 10
Williams & Herring	249 09	1,246 06
Other shippers	.....	10 02
Total	6,977 12	35,414 12
Corresponding week last year	7,089 13	31,228 02
Increase	.....	4,186 10
Decrease	41 01	.....

Raport of Coal

Transported over the Lehigh Valley Railroad, Week ending Saturday, February 2, 1867.

Where Shipped from.	Week. Tons. cwt.	Previously. Tons. cwt.	Total. Tons. cwt.
MAHANOY REGION.			
Trenton Coal Company	16 08	277 07	293 15
Mount Etna Coal Company	....	58 07	58 07
Mahanoy	.....	.....	.....
Delano	1,451 09	5,407 12	6,859 01
Glendon Coal Company	.....	151 14	151 14
Rathbun, Stearns & Co.	811 13	2,643 16	3,455 09
E. S. Silliman	196 15	13,207 09	13,404 04
McNeal Company	1,087 01	1,084 13	2,891 14
Knickerbocker	1,587 13	2,501 09	4,089 02
Thomas Coal Co.	466 02	1,411 00	1,877 02
Williams & Herring	243 10	922 12	1,166 02
New Boston C. Co.	....	....	....
Shamokin Coal Company	....	....	....
East Boston C. Co.	....	505 14	505 14
Other shippers	....	85 02	85 02
Total Mahanoy	6,560 11	28,236 15	34,797 06
WYOMING REGION.			
Baltimore Coal Company	451 02	7,858 01	8,309 03
Franklin Coal Company	542 09	683 00	1,225 09
Audenreid	151 19	633 04	785 03
Lehigh & Susquehannah	726 00	1,480 19	2,206 19
German'a Company	584 06	2,475 16	3,060 02
Wilkesbarre Coal and Iron Co	1,295 06	5,962 00	7,257 06
Warrior Run	126 04	963 09	1,089 13
Parish & Thomas	857 06	5,855 08	6,712 14
New Jersey	284 07	2,147 02	2,431 09
Union	693 07	1,296 12	1,989 19
Wyoming Coal & Trans. Co.	577 19	4,603 19	5,181 18
New Port C. Co.	.....	.....	.....
Morris and Essex Mutual	92 17	1,344 05	1,437 02
Westmores.	....	....	....
Eberhart C. Co.	....	....	....
Plymouth C. Co.	....	....	....
Hillman & Son	309 19	1,183 12	1,493 11
Bowkley, Price & Co.	77 14	....	77 14
Other Shippers	....	....	....
Total Wyoming	6,750 19	36,184 07	43,235 02
HAZLETON REGION.	....	....	....
Central Coal Company	....	....	....
Ashburton Coal Company	....	....	....
Mount Pleasant	....	284 13	284 13
Hazleton	2,121 00	1,625 18	3,746 18
East Sugar Loaf	....	851 05	851 05
Woodside Company	....	....	....
A. Pardee, Jr., Bro. & Co.	....	....	....
Stout Coal Company	....	548 10	548 10
Hurleigh	....	415 18	415 18
Ebervale Coal Company	....	1,630 01	1,630 01
Jeddo (G. B. M. & Co.)	....	2,175 14	2,175 14
Jeddo C. Co.	....	....	....
Highland Coal Company	....	....	....
Cross Creek	....	929 18	929 18
Council Ridge	....	2,755 05	2,755 05
Buck Mountain	....	603 02	603 02
Other Shippers	....	....	....
Total Hazleton	2,121 00	11,820 04	13,941 04
R. M. REGION.			
New York & Lehigh	36 02	10,808 10	10,844 12
Honey Brook Coal Company	717 06	14,047 05	14,764 11
Ger'n'a Coal Company	775 17	4,301 11	5,077 08
Spring Mountain	....	1,791 18	1,791 18
Conerame	981 05	7,304 16	8,286 01
B. Meadow, (D. W.)	....	58 06	58 06
John Connery	....	600 02	600 02
Lehigh Zinc Company	....	....	....
Other Shippers	....	33 00	33 00
Total R. M. Region	2,510 00	38,945 08	41,455 18
Total Hazleton	2,121 00	11,820 04	13,941 04
Total Wyoming	6,750 15	36,484 07	43,235 02
Total Mahanoy	6,560 11	28,236 15	34,797 06
Total	17,942 16	115,486 14	133,429 10
Cor. week last year	31,657 18	198,985 17	230,643 15
Increase	....	....	....
Decrease	13,705 02	83,499 03	97,214 05
Coal delivered at M. Chunk and forwarded by rail	17,942 16	115,486 14	133,429 10
Coal delivered on line of P. Haven and W. Haven R. R	14 13	75 03	89 16
At Junction, for shipment by canal	....	84 08	84 08
At Mauch Chunk	5 06	5 00	10 06
At Mauch Chunk for shipment by canal	....	....	....
Grand Total	17,962 15	115,651 05	133,614 00
Cor. week last year	31,657 18	198,985 17	230,643 15
Increase	....	....	....
Decrease	13,695 03	83,334 12	97,029 15

Schuylkill Coal Trade

BY RAILROAD, FOR WEEK ENDING FEBRUARY 7, 1867.

St. Clair	5,641
Port Carbon	41
Pottsville	13,005
Schuylkill Haven	1,604
Auburn	18 379
Port Clinton	
Total for week	38.670
Previously this year	228.238
Total	266,908

Reports of the Coal Traffic for the Last Week

as compared with those of the corresponding week last year, are as follows:

	1866.		1867.		
	WEEK.	TOTAL.	WEEK.	TOTAL.	DEC'RS.
Phil. & Reading R.R.	....	415,157	42,369	306,788	118,368
Schuylkill Canal	.....	.....	.....	.....	.....
Lehigh Val. R. R.	31,657	230,643	17,942	133,429	97,214
Lehigh Canal	.....	.....	.....	.....	.....
Del & Hudson	.....	.....	.....	.....	.....
Scranton North	6,968	32,369	6,082	27,012	5,357
Scranton South	15,719	64,387	19,599	87,179	22,592
Penn'a. Coal Co. Rail	.....	.....	.....	.....	.....
by Canal	.....	.....	.....	.....	.....
Wyoming North	.....	.....	.....	.....	.....
Wyoming South	.....	.....	.....	.....	.....
Shamokin	5,229	17,149	5,477	16,699	450
Trevorton	.....	.....	817	1,475	.....
Short Mountain	1,119	1,904	493	2,046	142
Franklin	.....	.....	.....	.....	.....
Broad Top	.....	12,374	3,921	13,617	1,243
Total week 1867	.....	774,183	96,070	586,770	.....
Corresp'ng time 1866	.....	586,770	.....	.....	.....
Decrease	.....	187,413	.....	.....	.....

Prices of Coal by the Cargo

[CORRECTED WEEKLY.]

At New York, Feb 9, 1867.

Schuylkill Red Ash (by Boat Load)			$7 00@$7 50
"	Chestnut,	" "	4 50 5 25
"	White Ash Lump		6 25 6 75
"	Steamboat		6 25 6 75
"	Broken		6 25 7 00
"	Egg		6 52 7 00
"	Stove		6 50 7 00
"	Chestnut		4 75 5 50
Lehigh White Ash Lump			6 50 7 00
"	Broken		6 50 ....
"	Egg		6 25 ....
"	Stove		6 75 ....
"	Chestnut		5 50 ....
Western Virginia Gas Coal			10 00 ....
Westmoreland Gas Coal			10 00 ....
Blossburg & Fall Creek			7 25 7 40

At Philadelphia, Feb. 9, 1867.

Schuylkill Red Ash Prepared			$5 50@$6 00
"	Chestnut		4 00 ....
"	White Ash Lump and Steamboat		4 00 ....
"	Broken		5 00 ....
"	Egg and Stove		5 25 ....
"	Chestnut		4 00 ....
Locust Mt. Lump, and Steamboat			5 25 ....
"	Broken		5 25 ....
"	Prepared		5 50 ....
"	Chestnut		4 25 ....
Lorberry Coal			5 75 ....
Shamokin			5 25 ....
Franklin, (Lykens Valley)			6 25 ....
Broad Top			5 50 ....

Scranton Coal at Elizabethport, Feb. 9, 1867.

Lump	$5 00@— —
Steamer	6 00 — —
Grate	6 50 — —
Egg	6 25 — —
Stove	6 50 — —
Chestnut	5 00 — —

Prices for Pittston Coal at New York, Feb. 9, 1867.

Lump, per ton of 2240 lbs	$6 25 ....
Steamer, " " "	6 55 ....
Grate " " "	6 40 ....
Egg " " "	6 50 ....
Stove " " "	6 75 ....
Chestnut " "	7 50 ....

Lehigh Coal at Elizabethport, Feb. 9, 1867.

Lump	6 75@$7 00
Steamboat and Broken	6 50 — —
Egg	6 50 — —
Chestnut	5 50 6 00
Stove	7 00

George's Creek and Cumberland Coal.

Run of mine, f. o. b. at Locust Point	$5 75@....
At Georgetown	5 50 ....

At Baltimore Feb. 9, 1867.

Wilkesbarre & Pittston W. A., wholesale	$7 50@	$7 75
" " " retail	8 25	8 50
Lykens Valley & Sunbury R. A., wholesale	7 50	7 75
" " " retail	8 25	8 50

Duty Bituminous $1.25. Other kinds 40 cents per ton

(From the Mercantile Gazette.)

At San Francisco, Jan. 8, 1867.

Australian	$	@ 9 50
De Wollsend		10 00
Pittston, ton	17 00	
Lehigh	18 00	
Cumberland, cks		25 00
do bulk	22 00	
Scranton	17 00	18 00
Liverpool		
Scotch		
West Hartly	12 00	
Vancouver Island	11 00	
Bellingham Bay	10 00	
California	6 00	8 00

Prices of Foreign Coals.

[REPORTED FOR THE JOURNAL OF MINING.]
BY H. L. PARMELE & BRO., 32 Pine street, N. Y.
Duty $1.25 per ton.

Liverpool Gas Caking	$11 00
" " Cannel	16 00
" House "	19 00
" " Orrel	16 00

Per ton 2240 lbs.
PRICES FROM YARD:

Liverpool Orrell, screened	20 00
" Cannel, "	22 00

per ton 2000 lbs. delivered.

Prices of Provincial Coals.

[REPORTED FOR THE JOURNAL OF MINING.]
BY LOUIS J. BELLON, JR., 43 Pine street, N. Y.
Duty $1.25 per ton.

Block House (on board)	$1 75	gold
Gowne "	1 75	"
Lingan "	1 75	"
Sidney "	2 28	"
Picton "	2 25	"
Glace Bay "	1 75	"
International Co.'s "	1 75	"
Slack Coal "	75	"

Coal Freights.

From Elizabethport.

Albany	$1 00@	—	New London	1 30@	—
Boston	2 00	—	Newport	1 50	—
Bridgeport	1 20	—	New York	70	—
Fall River	1 50	—	Norwalk	1 20	—
Hartford	1 75	—	Norwich	1 40	—
Hudson	1 00	—	Pawtucket	1 75	—
Lynn	—	—	Portland	2 00	—
Middletown	1 50	—	Portsmouth	2 15	—
New Bedford	1 70	—	Providence	1 50	—
Newburyport	2 25	—	Salem	2 00	—
New Haven	1 20	—	Taunton	1 40	—

From Baltimore.

To Philadelphia	$2 50@	—	Boston	3 75@	—
New York	2 25	—			

From Georgetown or Alexandria.

To Philadelphia	$2 50	—	Boston	3 50	3 75
New York	3 25	3 50			

By Railroad.

Transportation from Schuylkill Haven to Pt. Richmond	$2 25
Freight from Pt. Richmond to New York	1 60
Total	$3 85
From Port Carbon 8 cents per ton more.	

Freights on Coal to Elizabethport.

L. V. R. R. from Mauch Chunk to Easton	$1 15
C. R. R. of N. J., Easton to Elizabethport	1 66
	2 85
Shipping expenses at Elizabethport	50
Total	$3 11

Provincial Freights.

Sydney to N. Y.	$4 50
Lingan	4 50
Cow Bay	4 50
Bay Glace Bay	4 50
Little "	4 25

Foreign Freights.

New Castle and Ports on Tyne	19@20c keel.
Liverpool	15s.@ 20s

WEEKLY COAL TRADE CIRCULAR.

NEW YORK, February 8, 1867.

The Coal trade remains rather inactive at wholesale, although stocks in retail dealers' hands are being depleted. To keep up their assortment of sizes dealers are already commencing to purchase moderately. Before the middle of March it is anticipated there will be quite an active demand, as few dealers have sufficient stock to carry them beyond that period.

The Pittston Company's auction comes off next Wednesday, when, as advertised, from one hundred and fifty to two hundred and fifty thousand tons will be offered for sale. This is the largest amount of Coal ever offered at public sale, and the result is looked for with much interest, as it is presumed it will have a marked effect in determining the opening rates of transportation that will be fixed upon by the leading Coal roads. The true policy for the interests of all is to open tolls low, with a gradual scale of advancing charges as the season progresses. P.

FOREIGN MARKET REVIEW.

Weekly Metal Report.

LONDON, E. C., Jan. 18, 1867.

The Metal market has undergone no change of importance since our report of last week. With the exception of Tin, in which there has been an animated business, most articles have been quiet.

IRON.—In Welsh bars there is no change, prices are quoted as before, £5 15s@£6 5s. at the works. Staffordshire iron remains dull; the men have not yet accepted the reduction in wages, but they will doubtless do so ere long. Scotch pig iron has declined to 54s. 3d. cash.

COPPER.—English raw and manufactured are dull, second-hand parcels being offered under official quotations. Some business reported in Wallaroo at £85 and £85 10s. Burra, nominally, £86 10s. Chili bars, in Liverpool, £77.

TIN has been very active, and a large business done mostly in Straits, from £86 to £87, according to quality, and prompt; also at £88 for distant arrival. Banca, £89@90, according to prompt. English tin is selling at full prices. The Dutch market is firm at 53f.

TIN PLATES are in better demand, and prices slightly firmer.

LEAD.—The market is quiet; little doing.

SPELTER.—Very little business has been done, and prices are somewhat easier, some forced sales having been made at £21 10s., prompt cash. The present value, however, is £21 15s. Specials in outports, £22.

VON DADELSZEN & NORTH.

Oil Trade Circular.

LONDON, Jan. 18, 1867.

Market continues active and prices firm. A large home trade has been done both in Refined Petroleum and Paraffin Oils. There is no material difference in prices on the spot, but in forward contracts, which have been rather extensive, there is an advance of 5d. per gallon.

The inquiry for Lubricating Oil is also good, and prices appear to have an upward tendency.

PETROLEUM CRUDE—£15 15s per ton.
LUBRICATING OIL—£12 to £21 per ton.
REFINED COAL OIL—Best, 1s 5d. per gallon.
CRUDE—Dull of sale.
GREASE—£5 to £16 per ton.
PARAFFIN SCALES—3d. to 4½d. per lb.
PITCH—20s. to 75s. per ton.

STRANGE BROS. & CO.

COPPER ORES

NEW YORK, Feb. 8, 1867.

25 @ 50 per cent	$4 87½@	5 00
20 @ 25 "	4 50	4 87½
15 @ 20 "	4 25	4 50
10 @ 15 "	3 75	4 25

No business since last report. Prices unchanged.

BALTIMORE, Feb. 8, 1867

50 per cent and over	(Currency)	$4 85
25 " "		4 25
15 " "		4 00
10 " "		3 75
6 " "		3 25@3
5 " under		

Quotations remain unchanged—nothing new to report in the market.

BOSTON STOCK MARKET.

(By Telegraph.)

BOSTON, Feb. 8, 1867.

Canada	61c.	Minnesota	11¾
Copper Falls	61½	Quincy	34
Franklin	37½	Cary Improvement	9⅜
Hancock	11½	Water Power	27
Huron	35½	Central	..
Isle Royal	13½	Bay State	..

SALES, FEBRUARY 7.

20 shs Water P'r	28	150 shs Humboldt	2
300 do do b.30	28	50 do Pittsburg	42
100 do do	27½	50 do St. Clair	4½
200 do Cary Imp	9¾	100 do do s.30	4½
50 do Alouez M	8¾	100 do do b.30	4⅜
110 do do b.30	9	100 do do	4½
50 do do	8⅞	10 do Quincy	34
100 do do b.60	10	SECOND CALL.	
100 do Canada	70c	100 shs Calumet	60
5 do Copper Falls	57	1200 do Ophir Gold	2
100 do do b.10	58	500 do do b.30	2⅛
200 do do b.15	58	100 do Cary Imp. b.60	9¾
100 do Eagle R	2½	100 do Humboldt	2⅛
50 do do	2⅝	100 do do	2⅞
100 do do	2	100 do Copper Falls	58⅜
200 do do	3	100 do do b.15	58½
100 do Franklin b.60	37	100 do do b.30	59
100 do Hancock	12	50 do do	59
300 do do	11¾	200 do St. Clair	4
25 do do	11⅞	25 do Hancock	11⅞
5 do Huron	34	100 do do b.30	11⅞
100 do do	35	50 do Huron b.60	11¾
50 do do b.30	35¾	150 do do s.30	11½
200 do Isle Royal	13	50 do Allouez	8⅞
100 do Madison	2	150 do do b.30	9¼
100 do Minnesota	11¾	50 do Pewabic b.60	24
50 do do	12	100 do Water Power	27½
200 do do b.60	12	100 do do b.30	27½

SAN FRANCISCO STOCK MARKET.

Latest by Telegraph.—Feb. 7.

Name.	Bid per foot.	Name.	Bid per foot.
Gould & Curry	575	Crown Point	550
Savage	2025	Yellow Jacket	725
Chollar-Potasi	235	Belcher	125
Ophir	150	Alpha	..
Hale and Norcross	..	Imperial per share	175
Cal. Steam Navigation Co.	60	Cal. State Telegraph Co	32

Patent Claims.

Interesting to Miners, Millmen, Metallurgists, Oil-Men and Others.

The following claims have recently been issued from the United States Patent Office:

61,196.—MANUFACTURE OF ARTIFICIAL SLATES.—Henry W. Holly and Sidney L. Geer, Norwich, Conn.

We claim, 1st. The use of liquid silex, as a menstruum or binding material in liquid slating.

2d. Liquid slating composed of the ingredients specified, in or about the proportions set forth.

61,262.—AMALGAMATOR.—D. E. Rose, Cincinnati, Ohio.

I claim, 1st. The combination of the spring bearing, H, and inclined sectional shaft, B, provided with spiral flange revolving in the case, X, which enters the kettle, E, near the bottom, substantially as described.

2d. The combination of the inclined planing, X, provided at its lower end with stationary grinding flange, D, and the shaft, B, provided with a grinding disk, C, introduced through the side of the kettle and operating near its bottom, substantially as described.

3d. In combination with the kettle, arranged as described, I claim the revolving paddle, G, as described and represented.

61,271.—COMPOSITION FUEL.—Henry Slatter, Covington, Ky.

I claim as new, and of my invention, the composition fuel composed and compounded as set forth.

61,274.—AMALGAMATOR.—Syranus Standish, Pacheco, Cal.

I claim, 1st. The spiral-shaped flanges or lips, M, of the rotating muller-arms, L, substantially as and for the purposes specified.

2d. The shoes, M2, hung to the muller-arms, L, so as to be susceptible of a lateral play upon such arms, substantially as and for the purpose described.

3d. The shoes, M2, having spiral-shaped flanges or lips, O, upon their outer ends, and for the purpose set forth.

61,286.—QUARTZ-CRUSHER.—J. Varney and A. Rix, San Francisco, Cal.

I claim the combined use of the wrought-iron binder, k, the toggle-bar, M, and jaws, B and E, constructed and arranged substantially in the manner and for the purposes set forth.

61,291.—STILL FOR PETROLEUM.—William C. Wells, Parkersburg, West Va.

I claim, 1st. The frame-work, B, for the bottom of the still, and to receive the fire-sheets or plate, substantially as described and for the purpose specified.

2d. In combination with the bottom framework, B, of the still, the return flues, G, of the furnace corresponding with its fire-sheets, substantially as and for the purpose described.

61,318.—MACHINE FOR PRESSING FUEL INTO BLOCKS OR BRICKS.—John B. Collen, Philadelphia, Pa.

I claim a machine constructed, arranged, and operated substantially as herein described and represented, for the purpose of pressing artificial or natural fuel in a fine or granular state into blocks or bricks for transportation and for burning; as set forth.

61,323.—BLAST FOR IRON AND OTHER PURPOSES.—Felix A. T. de Beauregard, Paris, France.

I claim surrounding the furnace by a tank, the water within which is converted into steam by the heat of the said furnace and then discharged through suitable pipes or conduits, arranged substantially as herein described, so that the discharge of the said steam shall induce a blast within and through the furnace, as set forth.

61,347.—QUARTZ-CRUSHER.—Carlisle Mason, Chicago, Illinois.

I claim, 1st. The conical crushing disks, m, having their faces corrugated, substantially as shown and arranged to operate in connection with each other as set forth.

2d. The tension frame, consisting of the rods, x, and the keys or wedges, a, arranged to operate in connection with the crushing disks, m, as shown and described.

3d. In combination with the tension frame as above described, I claim the spring-beams, w, and the set-screws, c, arranged and operating as and for the purpose set forth.

Special Scientific Brevities.

☞ **Friedrich, a German chemist, has published a** method of preventing boiler incrustations, which, however, is only capable of limited application. He puts common pyroligneous acid into the boiler until the water faintly reddens litmus paper. This will, of course, convert the carbonate of lime into acetate, a much more soluble salt, but more of the acid must be added as often as the boiler is fed, since the excess will always distil off with the steam. When the carbonate is the only lime salt present in the water, this method will no doubt prevent the deposition of crust, and the common pyroligneous acid will probably be found as cheap to use as any boiler composition.

☞ **It is asserted by scientific writers that the num**ber of persons who have existed on our globe since the beginning of time amounts to 36,627,843,273,075,256. These figures, when divided by 3,095,000—the number of square leagues on the globe—leave 11,320,689,732 square miles of land, which, being divided as before, give 1,314,622,076 persons to each square mile. If we reduce these miles to square rods, the number will be 1,855,174,690,000, which, divided in like manner, will give 1,823 inhabitants to each square rod, and these being reduced to feet, will give about five persons to each square foot of terra firma.

☞ **A controversy has arisen between Professor** Hall, of the New York State Geological Museum, and Edward Maguire, Saratoga Springs, touching the bones recently exhumed at Cohoes, the former holding them to be the bones of a mastodon, and the other that they are bones of a large show elephant that died and was buried in Cohoes nearly forty years since. Professor Hall thinks the bones have laid in the earth 25,000 years—a slight difference.

☞ **For a long time, in the treatment of cases to be** cauterized, only the dreaded nitrate of silver (lunar caustic) was used to produce the caustic effect. We now use several substances, but Barnes substitutes for all these the sun's rays, converged by a burning lens, in all cases, (cancer &c.), in which caustic has been used, and the morbid character of which has to be extinguished. This solar burning is far less painful, non-injurious, and far more effectual than escharotic substances, or even hot iron.

☞ **The Chamber of Commerce of New York has** now in operation at its rooms Hough's wonderful self-recording barometer, which, by means of electricity, notes any change in the column exceeding one-thousandth of an inch, and by the intervention of clockwork, prints these changes at stated intervals, at the same time describing the curve of variation. At the end of every twenty-four hours a leaf of figures and diagrams is completed, which forms a part of the annual volume of automatic records.

☞ **In trying an experiment with about half a ton** of German phosphate of lime and sulphuric acid, I was astonished to see a very considerable evolution of iodine fumes. Having some misgivings on account of the novelty of the phenomena (to me), I exposed a sheet of paper smeared over with starch to their influence; the test was undeniable. Is this fact known to iodine manufacturers?

☞ **An instrument has been recently constructed** at Paris which possesses great power and sweetness. It somewhat resembles a piano, but is far more simple, as the strings are replaced by tuning-forks, one for each note. The sounds are produced by hammers, and are very persistent unless brought to an end by removing the fingers from the keys, and thus allowing the dampers to act.

All Sorts.

☞ **The Bishop of Wurtzburg once asked a spright**ly shepherd boy, "What are you doing here, my boy?" "Tending swine." "How much do you get?" "One florin a week." "I am a shepherd also," said the bishop, "but I have a much better salary." "That may all be, but then I suppose you have more swine under your care," replied the boy.

☞ **In the State crown of England there are: One** large ruby, irregularly polished; one large broad-spread sap-

phire ; sixteen sapphires; eleven emeralds; four rubies; one thousand three hundred and sixty-three brilliant diamonds; one hundred and forty-seven table diamonds; four drop-shaped pearls; two hundred and seventy-three pearls.

From the Colliery Guardian.

The London Coal Trade.

Mr. Scott, the clerk and registrar of the London Coal Exchange, in his annual return of coal, culm and cinders imported into London, informs us that during the year just closed the quantity conveyed by sea to the Metropolis was 3,033,193 tons, and by rail, canal and road, 2,986,989 tons, making a total of 6,020,182 tons. This return shows a decrease in the sea-borne importation of 128,490 tons, and an increase in the quantities brought by land of 238,484 tons.

The following statement shows the quantities sent to London from each of the ports named, and the number of vessels by which the mineral was conveyed :

Newcastle sent	1,502,517 tons	in 2,820	ships.
Seaham "	112,628 "	440	"
Sunderland "	754,377 "	1,932	"
Middlesbro' "	65,192 "	212	"
Hartlepool and West Hartlepool	445,408 "	1,403	"
Blyth sent	15,777 "	47	"
Scotch "	29,421 "	138	"
Welsh "	52,508 "	154	"
Yorkshire, &c.	23,375 "	178	"
Duff	692 "	4	"
Small	24,128 "	47	"
Cinders	8,720 "	69	"
Culm	590 "	2	"

Turning to the quantities sent by rail we find that

	Tons.
The London and North Western carried	1,188,296 12
Great Northern "	1,006,277 00
Great Western "	367,908 00
Great Eastern "	212,467 16
Midland "	156,945 16
South Western "	21,072 00
South Eastern "	9,734 14
Chatham and Dover "	6,156 11
Tilbury and Southend "	638 00
	2,969,896 09

The Grand Junction Canal brought to the London market 10,176 tons 10 cwt.

For the month of December, 1866, the quantities received within the London district, and entered in the London coal market, were as follows:

OVER SEA.			
From Newcastle	161,745 tons	in 307	ships.
" Seaham	9,227 "	34	"
" Sunderland	77,213 "	155	"
" Middlesbro'	4,684 "	15	"
" Hartlepool and West Hartlepool	31,000 "	94	"
" Blyth	1,196 "	4	"
" Scotch	4,106 "	15	"
" Welch	2,683 "	9	"
" Yorkshire, &c.	1,275 "	12	"
Small	2,432 "	6	"
Cinders	180 "	3	"
Total imported in Dec., 1866	295,741	654	
Total imported in Dec., 1865	319,295		
Decrease in 1866	23,554 tons.		

BY RAIL.	Tons.
Per London and North Western	119,402 07
" Great Northern	109,000 00
" Great Western	30,653 00
" Midland	15,497 14
" Great Eastern	3,622 03
" South Western	1,589 13
" South Eastern	890 03
" Tilbury and Southend	35 00
Total by Railways, Dec., 1866	280,630 00
" " Dec., 1865	255,605 17
Increase in 1866	25,024 03
Per Grand Junction Canal, Dec., 1866	757 10
" " Dec., 1865	619 10
Increase in 1866	138 00

SPECIAL NOTICES.

☞ Levey Brothers, No. 58 Nassau street, this city, have a portable self-acting fire engine which our readers would do well to see, or send for a circular describing it. The manufacturers claim for it, among other novelties, that: "It is so portable, any person carries it without hindrance to active exertion; entirely self-acting and self-propelling, so that all the bearer has to do is to direct the jet by means of a flexible tube; it possesses within itself the power of a force pump, and contains a chemical liquid (perpetually renewable), every drop of which has a magical effect. Less than one-half the contents of the extinguisher is sufficient to extinguish fires, large and fierce as they may be, in their earliest stages." Moreover that "on coal oil, or any similar inflammable material, the contents of the extinguisher has instant effect."

☞ The Woodward Steam Pump Manufacturing Company, No. 76 and 78 Centre street, cor. Worth, N. Y. city, is prominently and favorably known to the general public, in connection with making the Woodward patent improved Safety Steam Pump, used for mining, among other purposes, and as a fire engine. The Woodward building is one of the prominent landmarks of this city, and from the neatness and general good taste of its architecture, together with its extent, does much to improve that portion of the city in which it is situated. Its sales rooms are completely stocked with steam, water and gas-fittings, engineers' and machinists' supplies, wrought iron pipe, boiler tubes, etc.; descriptive circulars of which our readers can obtain by calling upon or addressing George M. Woodward, Esq., President, as above. The establishment of this company is well worthy a visit by those interested in the business.

NOTICE.

PROFESSOR BENJAMIN SILLIMAN, intending to leave for California by the Steamer of Feb. 11th, will take charge of any Commissions entrusted to him for the examination of Mining Properties on the Pacific coast.

Address B. SILLIMAN, New Haven, Conn., or Box 4141, New York City Post Office.

After February 10th communications directed to Box 4141 N.Y. Post Office, will receive prompt attention. 19:x

JOSEPH HIRSH Ph. Dr.

Analytical and Consulting Chemist,

MANUFACTURER OF

PURE CHEMICALS,

Office 33 Courtland Street,

t.f NEW YORK.

FRANCIS E. ENGELHARDT, PH., DR.,
PROFESSOR OF CHEMISTRY IN ST. FRANCIS XAVIER'S COLLEGE,

Analytical and Consulting Chemist,

49 WEST FIFTEENTH STREET, NEW YORK.

Respectfully offers his Professional Services to

Miners, Manufacturers and Others.

CHEMICAL INVESTIGATIONS IN THE VARIOUS BRANCHES OF MANUFACTURING,

And

ANALYSES OF EVERY KIND

will be promptly and accurately executed. 23-tf

CHARLES P. WILLIAMS,

ANALYTICAL AND CONSULTING CHEMIST,

AND

MINING GEOLOGIST,

No. 138 WALNUT STREET, PHILADELPHIA.

Assays and Analyses of Ores, Soils, etc.,

Executed with Promptness and Accuracy.

EXAMINATION OF, AND REPORTS ON, MINERAL LANDS AND MINES FURNISHED ON APPLICATION.

22-ps

JULIUS G. POHLE, M. D.,

FORMERLY OF, AND SUCCESSOR TO,

Dr. JAMES R. CHILTON & CO.,

Analytical and Consulting Chemist,

No 489 BROADWAY, - - - - - NEW YORK

(N. W. COR. OF BROOME STREET.)

Analyses and Assays made of Ores of Gold, Silver, Quicksilver, Lead, Copper, Manganeese, Nickel, etc., etc.; Minerals, Alloys, Petroleum, Commercial Articles, etc 1-tf

R. P. ROTHWELL,

Mining and Civil Engineer and Metallurgist,

From the Imperial School of Mines, Paris, Member of the Geological Society of France, &c.

OFFICE, WILKESBARRE, PA.

Having had a large practical experience in Europe and this country is prepared to examine and report on all kinds of Mineral property, superintend Mines and Metallurgical Works, Assay Ores, &c. 18:23ap

GREGORY YALE,

ATTORNEY AND COUNSELLOR AT LAW,

18 Merchants' Exchange,

SAN FRANCISCO, CAL.

Has been practicing Law in California since 1849. He will give special attention to applications for United States Patents for Mining Lodes, under the act of Congress of the 26th of July, 1866, before the local officers of the respective Land Districts in the State, and is prepared to give opinions upon all legal questions relating to the Mining Laws of the State, and upon the Mining Ordinances of Mexico and Spain.

He refers to the Hon. Stephen J. Field, Associate Justice of the Supreme Court of the United States.

Jan. 1, 1867. 18:12ap

NEW YORK STEAM ENGINE COMPANY,

Manufacturers of

STEAM STAMPING MILLS,

Stationary and Portable Engines,

Engine Lathes, Planers, Bolt Cutters, Upright Drills,

AND

Machinists Tools of all Descriptions.

OFFICE AND WAREROOMS, 222 PEARL ST.,

NEW YORK. 20:2:xm

HUTCHINSON & LAURENCE,

No. 8 Dey Street, New York,

Dealers in Every Class of

MACHINERY,

Steam Engines and Boilers, Circular Saw Mills, Iron and Wood Working Machinery, Machinists Tools, Shafting, &c., Mill and Plantation Machinery, such as Horse Powers, Cotton and Hay Presses, Cotton Gins, Portable Engines, Corn and Wheat Mills, Saw Mills, Improved Steam Packing, Belting, Tools, &c.; Agricultural Implements, with the Latest Improvements. All our Machinery is from makers of reputation and experience, and will be fully guaranteed. ☞ General Agents for Judson's and other Improved Governors. 20:2:pd

ASBURY

IRON MINING AND MANUFACTURING CO.

This company is ready to supply Furnaces with the best magnetic oxyde, yielding by analysis from 65-70, and 600 tons have been delivered to the most extensive Blast Furnace in New Jersey with entire satisfaction. The monthly product of about 500 tons is offered for sale, deliverable at Asbury Station cars, on the Central R.R of N. J., 12 miles from Easton, Pa. Contracts for one year will be entered by

LEWIS FEUCHTWANGER.

Samples may be seen at the President's office, 55 Cedar street, New York. 19:x

MADOC GOLD REGIONS.

12,153 ACRES OF LAND FOR SALE in the Madoc Gold Regions of Canada West.

Apply to the Proprietor, T. D. LEDYARD,

4:2p 74 Yonge Street, Toronto.

Gold, Silver, and Lead Ores Wanted.

PARTIES HAVING ON HAND, in or near this city, Gold, Silver or Lead ores in quantity which they desire to advantageously dispose of may address, with particulars, "Ores wanted," Box 5969 P. O., New York City. 17-tf

TO CONTRACTORS AND MINERS

The Commissioners on the Troy and Greenfield Railroad and Hoosac Tunnel, acting for the State of Massachusetts, invite Proposals, until the tenth day of March next, for Excavating said Tunnel at three different sections of that work.

This Tunnel, when completed, will be about 4 2-3 miles in length, extending from the Town of Florida, through the Hoosac Mountain, to the Town of North Adams.

The Eastern End has been penetrated from the grade of the Railroad 3500 feet, 2400 feet of which consist of an opening of about 10 cubic yards to each lineal foot, the same to be enlarged to a section containing about 17 cubic yards to each foot; the remaining 1100 feet being heading, now measuring upon an average 4 cubic yards per running foot, to be enlarged to the full section; making some 35,000 cubic yards to be removed.

A further section of the work will also be let to the successful bidder for the above-named enlargement, if satisfactory terms shall be offered.

The West rn End is worked from a shaft 318 feet deep. The easterly heading from this shaft—of about 6 cubic yards to each lineal foot—extends 1100 feet, and is to be enlarged to a section containing 17 yards per foot, requiring the removal of 12,000 cubic yards. Bids for that amount, and for an extension in either direction of the heading and enlargement at this point, will be received.

The Central Shaft, of an elliptical form, 27 by 15 feet, now 40 feet in depth, is to be sunk to grade, 1630 feet from the surface requiring the removal of about 9000 cubic yards.

All the work to be done is in Talcose Slate, and will require neither masonry nor supports of any kind.

Buildings, machinery, and means of ventilation, all of the most substantial character, have been provided, and will be furnished to contractors.

Ample sureties will be required from parties who may be contracted with, and the Commissioners reserve the right to reject all offers that may be made.

Plans and specifications may be seen on application to ALVAH CROCKER, at the Engineer's Office, North Adams, Mass.; and other information may be obtained from JAMES M. SHUTE, Room 10, No. 13 Exchange street, Boston, to whom proposals may be directed.

JAMES M. SHUTE,
ALVAH CROCKER,
CHARLES HUDSON.
Commissioners.

BOSTON, January 30, 1867. (19:i)

GOLD MINE.

TO CAPITALISTS.

AN OPPORTUNITY IS NOW OFFERED FOR ONE OR MORE capitalists to join in the purchase and stocking of one of the

Richest and Most Valuable Properties in Grass Valley, Nevada County, California, adjoining the well known

EUREKA MINE,

which has paid $20,000 to $50,000 per month the past year.

The Mines have been tested, are already partially developed, and have ore enough now to work a 10-stamp mill for five months. A similar property, and near this, sold last June for $400,000 (gold), though no richer than this. I am prepared to put this property in a Stock Company on liberal terms, for the sake of procuring funds necessary to erect roasting and pumping works and mill.

It is a first-class Mining Property, title perfect, will bear the fullest investigation, and can be made to pay fifty per cent. in gold on the investment per annum.

For further particulars call on or address

E. G. SHEPPARD,
No. 2 Bowling Green, New York.
☞ P. O. Box 4,083. 19:2:ps

JOHN WATERS,

GOLD AND SILVER REFINER

AND

ASSAYER,

ESTABLISHED 1839,

No. 57 VESEY STREET, NEW YORK.

ANALYSES MADE OF ORES, MINERALS, ETC., BY FIRE.

Lead and Copper Ores a Specialty.

Miners are Assured of Careful and Accurate Assays.

Gold Dust and Bars Purchased. 19:2:i

WATER-WHEELS.—Warren's American Turbine is acknowledged the best finished, the simplest constructed, and the greatest Water-saving Wheel in the Market. Also Warren's Improved Turbine Regulator is not surpassed for giving uniform speed. Address,

ALONZO WARREN,
Agent American Water Wheel Co.
No. 31 Exchange street,
19:v2xm Boston, Mass.

JOHN GALT,

Wholesale Dealer in Roofing Slate.

Sole Agent for the

EAGLE SLATE COMPANY OF VERMONT,

Who produce

PURPLE, GREEN AND RED ROOFING SLATE.

Sole Agent for New York and the West for the

CHAPMAN SLATE COMPANY OF PENNSYLVANIA,

Who produce a Superior Black or Dark Blue Slate; also Sole Agent for New York and the West for the

LEHIGH SLATE COMPANY OF PENNSYLVANIA.

General Depot,

Cor. Tenth Avenue and Twelfth Street,

NEW YORK CITY.

Established in 1850.

BRANCH DEPOTS:

Buffalo: W. J. Roberts, Terrace Square.

Chicago: James Parker, corner Franklin and Washington streets.

Charleston, S. C.: C. J. Demorest, East Bay, near Wentworth street.

New Orleans: J. J. Lee, 368 Magazine street.

☞ I am prepared to give parties the prices of Slate delivered throughout the United States at the nearest Railroad Station.

Orders by mail will receive prompt attention. [17:2 xm.

LYONS' PEAT MACHINE.—Owners of Peat Land, and others interested in the manufacture of Peat Fuel, are invited to examine this Automatic Machine, at the works of L. E. OSBORN & CO., 16 and 18 Artizan street, New Haven, Ct. Parties can see it running by giving a day's notice.

For further particulars address

LYON'S PEAT MACHINE COMPANY,
19:2:10t Litchfield, Conn.

NORTH STAR
GOLD AND SILVER MINING CO.,
No. 88 Washington Street, Chicago.

Capital Stock, $500,000.
SHARES $50 EACH.

LEONARD G. CALKINS, President,
H. C. BALLARD, Secretary and Treasurer.
GEORGE R. MITCHELL, Mining Superintendent

BOARD OF DIRECTORS.

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J. S. HOWELL, Chicago.
SAMUEL H. GILBERT, Agent St. Louis Mutual Life Insurance Co., Chicago.
LEONARD G. CALKINS, Chicago.
H. C. BALLARD, Chicago.
R. MARTELLE CLARKE, Chicago.

The property of this Company consists of 310 feet of the famous Illinois Lode on Quartz Hill, near central City, Colorado, in the most popular, the richest and best developed gold bearing quartz belt of territory on the continent, and probably the richest in the world. On the property in question is a mill 60x80 feet, with an 18 horse power engine, 12 stamps, and all the necessary hoisting-gear, belting and other machinery to work the mine. There are five shafts already sunk on the property, the deepest one being 130 feet, which is of ample capacity to work the entire vein. The property is of the same grade or class as the Gregory, Bates, Bobtail and Blackhawk mines, nearly contiguous to our mill. The Company also own 1,500 feet of valuable property on the Partnership Lode, within a short distance of our mill, and near Central City, which, when fully developed, may be found as rich in gold deposits as the Illinois Lode. Capitalists and others seeking safe and profitable investments will readily appreciate the value of WELL-DEVELOPED MINING PROPERTY, in comparison with that of other new companies which have as yet no mill and scarcely any development of their mines.

Our stock is full paid, not liable to further assessments. Mr. Mitchell, our Superintendent, has been engaged in practical mining for the past six or seven years in the immediate vicinity of our mill, and for a year or two past has had charge of the works of two Eastern companies on the Alps and Grenada lodes as Superintendent. Our company is fortunate in having secured his valuable services and practical knowledge to demonstrate the value of our stock as a source of revenue to the holder, and we expect at an early day it will stand on the stock boards equal to that of the best old or new companies now organized.

There will be a surplus working capital of $80,000, to be used to secure the best process for extracting gold and increase the products of the mine for the benefit of our stockholders; and we are sure that no better paying investment can be found. Every mile of the Pacific Railroad extended westward toward Denver City (but 40 miles from our mill) will increase the value of our mine and reduce the expense of mining.

Books for subscriptions to stock are now open at the office of the Company, at No. 88 Washington street, Chicago. 18s

FRANK B. POLLEY & CO.,
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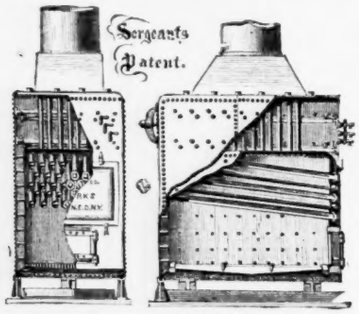

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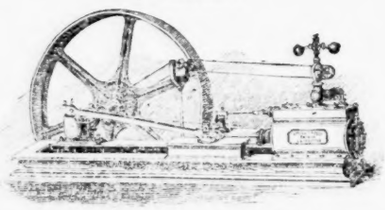

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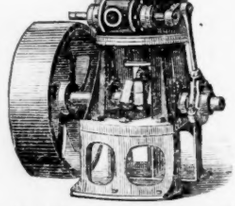

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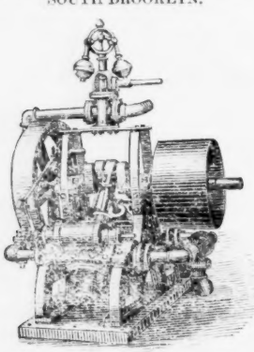

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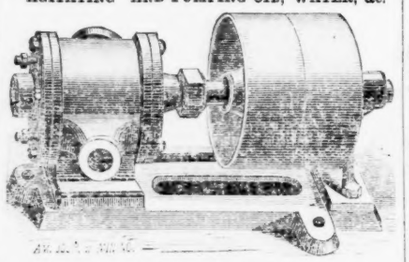

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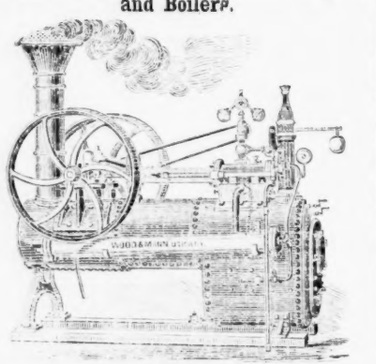

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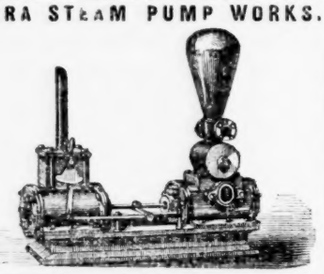

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